

What Our Customers Say About Our Service and Goods

GENTLEMEN—In answer to yours of recent date, asking if the supplies that you shipped to me were O. K. and were satisfactory.

Yes, they did and they were very satisfactory and I must thank you for the advice given me on what sizes of pipe to buy, as I am well pleased that I took your advice.

> J. H. SWARTZ, East Stroudsburg, Pa.

GENTLEMEN—I received my shipment of plumbing supplies O. K. Everything seems to be alright and it came through in good shape due to the fact that it was well crated.

Thank you very much for your promptness in handling my order.

Yours very truly,
HERBERT A. RICE,
Barre, Mass.

This GUARANTEE Covers Every Sale

We guarantee all articles herein listed both as to materials and workmanship. Each and every item must be exactly as represented or the sale is incomplete. You must be satisfied. If, on receipt and examination, you should find any articles that are defective, or in any way not exactly as represented by us, we guarantee to replace the same at our expense or refund your money, if you so desire, on receipt of such goods returned to us collect.

SMYTH-DESPARD CO., By D. DeW. Smyth, Pres. Utica, N. Y. GENTLEMEN — Material arrived O. K. I am very much pleased with the same. Thank you for your prompt shipment and I will send order for more supplies in a few days.

Yours truly, J. H. Hutchinson, Auburn, New Jersey.

Gentlemen—I wish to inform you that the furnace was received in good condition and is now installed and is giving perfect satisfaction. I must say that it is a "Jewell" as well as a "KracKerjacK." I am very much pleased with it. Several persons have asked me about it and I am glad to recommend you as you have treated us fair.

I remain,

GENTLEMEN—The two

orders of plumbing sup-

plies I received from you

came prepaid and in good

order, and cost much less

than if I had bought lo-

H. A. Hayes,

Yours truly,

Vineland, New Jersey.

Mrs. S. Oberle, 1114 Gorsuch Avenue, Baltimore, Maryland.

GENTLEMEN—KracKerjacK Furnace I got from you is doing all you claim for it. Am well pleased with it.

Very respectfully, E. G. SWARTZ, Mill City, Pa. Gentlemen—Furnace arrived all O. K. Friday night and this morning another fellow and myself started to set up the furnace and tonight we had a fire in it. We finished it complete in just nine hours. Everything fitting fine and it works alright. I am very much pleased with it.

Very truly, yours,

JAMES W. WEST,

Middleburg, N. Y.

GENTLEMEN—The laundry tray and porcelain sink purchased from you, I am well pleased with both. I ordered them one week and they came the next.

Yours,

IDA COOK,

Dover, Delaware.

Wholesale Prices to Retail Buyers

OUR POLICY AND SERVICE

- 1. Our Mail Order Department is the outgrowth of an old established business of which it forms a part. You take absolutely no risk in dealing with us. Your Bank, Bradstreet's or Dun's will assure you of that. Our service has back of it Twenty years of experience in equipping mills, factories and creameries with mechanical and sanitary supplies. Our organization is fitted to serve you promptly, satisfactorily and at the Lowest Possible Prices, consistent with high quality. Our experience is at your service. Consult it freely.
- 2. As specialists in mechanical and sanitary supplies, we have selected and listed in this catalog those Essential Supplies only that are particularly needed in the equipment of the Modern Home and the Modern Farm. Beyond these, we carry a large general stock of mechanical supplies and solicit your inquiries on your mechanical requirements whether for the Farm, Home, Mill or Creamery. We know the goods we offer are of the highest quality. We know our prices are right. We know we can save you money.
- 3. Our system provides for: Direct Sales; No Middlemen. One price to everybody; Cash with Order. We prepay Freight on all orders received, amounting to \$10.00 or more, to your railroad station in any of the following states: New York, Pennsylvania, New Jersey, Delaware, Maryland, Ohio, Massachusetts, Rhode Island, Connecticut, Maine, Vermont and New Hampshire. Elsewhere we will equalize freights correspondingly. By our mail order sales system, we cut our selling costs to a minimum. By requiring cash with order, we avoid discriminations and a costly credit system. Both Savings are passed on to you in price.
- 4. Our prices are protected against decline in this manner; namely, that should reductions occur, you will immediately receive the benefit of such reduction and any difference between the market and catalogue prices will be remitted to you on orders received subsequent to such change. As is customary, we reserve the right to protect ourselves against sudden and exceptional advances, through the cancellation of order and the return of money, when, under extraordinary conditions, the transaction involves serious loss. However, our intent and practice is to absorb any minor market advances ourselves.
- 5. We welcome comparison of our prices with those of others. Remember in this connection our Free Delivery System. Subject to the conditions outlined above, we Prepay Freight. Remember, too, that all commodities offered are of the very highest grade procurable. Our guarantee has back of it not only our full financial worth but also twenty years' experience in the manufacture and sale of mechanical and sanitary supplies and a reputation gained through twenty years of fair and honest dealings with our customers.
- 6. We invite inspection of our stocks. It will give us ple welcome you and your friends in our store. We will spare no effort serving you, to win and to retain your confidence.

The Krackerjack Pipeless Furnace

The KracKerjacK Furnace is designed primarily for the Rural Home, Church or Schoolhouse. For best results, it should be installed in houses that are fairly compact, and where rooms are so connected as to allow a fairly free circulation of air. Unless there is an open stairwell, the use of ceiling registers is recommended for heating

the second floor. The wonderful efficiency of the KracKerjacK Furnace lies quite as much in the rapidity with which the cold air is withdrawn from the rooms as in the force with which the heated air is expelled to replace it. This Furnace represents the best heat engineering and practice. It is so thoroughly substantial, it will last a lifetime. It carries unusual weight, size for size. No expense has been spared in materials and workmanship. All parts are so simply constructed that anyone, who can use a saw, a pair of tinners' snips and a screw driver, can readily install it. No high priced labor is required. We furnish full instructions for installing. We challenge comparison with any other furnace on the American market.



Exclusive Features of the KracKerjacK Furnace

- 1. A Cast Iron Radiator. It will last forever.
- 2. An extra high combustion chamber.
- 3. A grate of triangular crusher pattern, extra heavy construction.
- 4. A straight sided Deep Corrugated Fire Pot.
- 5. Every section is provided with extra deep cupped joints, ground to an exact fit.
- 6. Perfect Insulation of hot air chamber.
- 7. Heavy galvanized iron outer shell or casing.
- 8. Extra large feed doors.
- An extra woodburning grate free, together with poker, check draft, water pan, shaker handle, check and regulating dial, chain and pulleys.

We feature the KRACKERJACK Furnace in the sure knowledge that it has no equal.

Specifications

NUMBER	718	720	722	724	726
Size of Fire Pot	18"	20"	22"	24"	26"
Size of Smoke Pipe	11	8"	8"	8"	9" .
Size of Feed Door		123/4x93/4"	123/4x93/4"	13½x10¼″	13½x10¼″
Size of Register Face		30x30	34x34	36x36	40x40
Size of Inner Casing	**	34"	38"	42"	46"
Size of Outside Casing	0.04	42"	46"	50"	54"
Maximum Height	0.04	96"	96"	96"	96"
Minimum Height.		72"	72"	72"	72"
Average Weight		990 lbs.	1229 lbs.	1407 lbs.	1697 lbs.
Capacity in Thousand Cubic Feet		10 to 15	15 to 20	18 to 25	25 to 35
Price Complete less Smokepipe		\$97.40	\$117.61	\$140.21	\$168.16
The complete less canonopiper					



Pipe and Fittings at Wholesale Prices

On this and the following pages we illustrate and show prices of standard articles for steam and water jobs. These prices (delivery paid) speak for themselves. The quality of the products is absolutely high grade and is backed by our unconditional guarantee.

Use Black Pipe and Fittings for steam and hot water heating systems or air pipe lines.

Use Galvanized Pipe and Fittings for supply and waste pipes on plumbing systems, drinking water pipe lines, etc.

Prices quoted are for random lengths 18 to 20 feet threaded both ends, coupling on one end. For pipe cut to specified lengths furnished threaded both ends only, no couplings, see extra charge for threading each thread.

Inside Diameter	Black Price per 100 ft.	Galvanized Price per 100 ft.	Extra For threading	Inside Diameter	Black Price per 100 ft.	Galvanized Price per 100 ft,	Extra For threading
1/8"	\$ 3.97	\$ 5.53	\$.05	2"	20.11	25.16	.10
1/4"	3.96	5.66	.05	2½"	31.78	39,77	.15
1/4" 3/8"	3.96	5.66	.05	3"	41.57	52.01	.20
1/2"	5.16	6.49	05	3½"	52.89	65.45	.25
1/2" 3/4"	6.49	8.06	.05	4"	62.66	77.54	.35
1"	9.24	11.56	.06	41/2"	73.01	90.34	.45
11/4"	12.50	15.63	.07	5"	85.08	105.28	.55
11/2"	14.94	18.70	.08	6"	110.38	136.58	.70

treet lack Galv

03 04 07

.15 .24 .35

	S
	BI ea
3/8"04 .07 3/8" 3/8"	\$.
$\frac{1}{2}$ "	
$\frac{3}{4}$ "	
1½"17 .26	,
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	

	Malleable	Iron 45°	, Elp	ows
1		Size	Black each \$.03	Galv. each \$.04
6		3/8"	.04	.06
1		3/4"	.09	.13
8 6 7	The state of the s	11/4"	.11 .18	.21
7		$\frac{1}{2''}$.28 .42	.41 .61

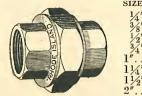
Wrought	Iron C	ouplin	gs
	Size	Black each	Galv. each \$.05
1	$\frac{\frac{74}{3/8}}{\frac{1}{2}''}\dots$	05	.07
	3/4"···· 1"·····	09	.11
	$1\frac{1}{2}$ 2^{n}		.21 .27 .34

Malleable Ir	on B	ushin	igs
	Size	Black each	Galv.
1	1/4".	.\$.03	\$.06
	3/8".	04	.07
SID.	1/2".	04	.07
	1/4	05	.08
	11/4"	07	.12
	$1\frac{1}{2}$ ".	08	.15
	2"	12	.24

	Malleable Iron Lockni	ıts
٧,	Black	Galv.
1	Size each	each
6	$\frac{1}{4}'' \dots \$.02$	\$.03
7	3/8"	.03
7	$1/2'' \dots .03$.04
8	$3\frac{3}{4}$ "04	.06
0	1"06	.08
2	$1\frac{1}{4}$ "	.12
5	$1^{1/2}'' \dots .09$.13
4	$2^{\prime\prime}$.15

Ground Joint Unions

Galvanized, Rust Proof. Brass Inserted Seat. Requires no Gasket or Washer. Guaranteed Leak Proof.



SILE										EACH
1/4"										\$.17
										.23
1/2"	•	٠			-	٠	٠	٠	•	.29
1''										.35 .46
11/4"										.70
11/2"										.93
2''			,		٠					1.17

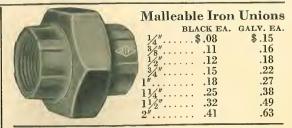
N	Ialleable Iron Crossovers
	SIZE GALVANIZED EACH
	1''

Pipe Straps Rust Proof	FOR PIPE 3/8" 1/2" 3/4"	 \$.05 .06
	1"	 .10 .11

Wrought Iron Pipe Nipples

Short Nipples up to ½" size are 1½" long; ¾" and 1" sizes are 2" long; 1¼ to 2" sizes are 2½" long. Long Nipples in ¼", ¾8", ½", ¾4", 1", 1¼", 1½", 2" sizes are lengths longer than specified above, and up to 6" long. Nipples longer than 6" take price of pipe plus charge for two threads.

к	unca	uo.					
ř		Bla	ıck	Galvanized			
1	Size	Short ea.	Long ea.	Short ea.	Long ea.		
ı	1/4".	\$.02	\$.05	\$.03	\$.08		
u	3/8".	02	.05	.03	.08		
1	1/2".	03	.06	.04	.09		
ı	3/4".	04	.07	.05	.10		
Š	1"	05	.08	.06	.12		
Ē	11/4".	06	.10	.08	.17		
Ē	11/2".	07	.13	.09	.20		
7	2"	08	.17	.12	.26		



Malleable Iron Reducing Couplings BLACK EA. GALV. EA. \$.04 \$.05 .04 .06 .09 .07 .13 .09 .13 .20 .29 .24 .36

Malleable Iron Tees	Malleable Iron Caps	Cast Iron Plugs			
Size Black cach each 1/4" . \$.04 \$.06 38" . 06 .09 1/2" . 08 .12 34" . 11 .17 1" . 16 .24 11/4"21 .32 11/2" .30 .47 2" .50 .75	Size Black each each each size with the size of the si	Size Black Galv. each sach sach sach sach sach sach sach s			





Wrought Iron Long Screws

or Tank Nipples





Price per lb. \$.12½

Extra heavy.....4".....

Soil Pipe Fittings

Sanitary T Branch



With 2" side inlet, right or left hand.

Standard Extra Heavy \$ 2.16 4"....\$1.94

Sanitary T Branch



Extra Heavy \$.67 Standard Weight 2"x2"..\$.49 4"x2"....76 4"x4"...1.03 .99 1.26

Tapped T Branches



Tapped for 1¼", 1½" or 2" iron pipe threads as desired.

61 .	Standard	Extra
Size	Weight	Heavy
2"	.\$.63	\$.76
4''	90	1.12

Running Trap



With 4" single

Standard Extra Size Weight Heavy 4"..\$1.98 \$2.47

Running Trap



With 4" double vent.

Standard Extra Size Weight Heavy 4" \$ 2.34 \$ 2.92

Y Branch



Standard Extra Size Weight Heavy 2"x2"...\$.49 4"x2"... .76 4"x4"... 1.03 \$.67 .99 1.26

Sanitary Cross



Standard Weight Extra Heavy Size 2"x2". \$1.12 4"x2". 1.62 4"x4". 1.62 \$1.39 1.93 1.93

Ventilating Caps



Spigot End Standard Extra Weight Heavy Size 4"....\$.81 \$.99

Reducers



Standard Weight Extra Size Heavy 4"x2"..\$.36 \$.40

Eighth Bend



Standard Weight Extra Size Heavy 2"....\$.31 4"....54 \$.36 .67

Sixth Bends



Standard Extra Size Weight \$.36 \$.40 4"......54 .67

Quarter Bend



Standard Weight Extra Size Heavy 2".....\$.36 \$.49 .76

Offsets

Size T	o Offset	Standard Weight	Extra Heavy
2"	4"	. \$.54	\$.67
2"	6"	67	.81
2''	8"	67	.81
2"	10"	90	1.12
2"	12"	. 1.03	1.26
4"	4"	90	1.12
4"	6"	99	1.26
4"	8"	. 1.12	1.39
4"	10"	. 1.35	1.66
4"	12"	. 1.44	1.80

Soil Pipe Rests



SIZE

 Standard weight.
 2"
 \$.27

 Standard weight.
 4"
 .36

 Extra heavy.
 2"
 .36

 Extra heavy......4".....

Double Hubs



 Standard weight
 2"
 \$.36

 Standard weight
 4"
 .54

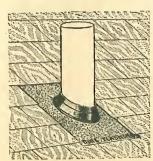
 Extra heavy
 2"
 .40

 Extra heavy
 4"
 .67

Cleanout Plugs

Made of cast iron with brass cover. For standard or extra heavy fittings.

SI 2"		ž.																.34	
4"	٠																	.56	



Adjustable Roof Flanges

Made of heavy galvanized iron and lead. Insures a watertight joint where soil pipe goes through roof. Adjusts to any pitch roof.

SIZE	C										PRICE
2"										. \$.97
											1.14

QUARTER BENDS With 2" Side Inlet

STANDARD WEIGHT HEAVY .\$ 1.12 \$ 1.39 Inlet on Right or Left Hand side. Cut shows left hand inlet. Specify



QUARTER BENDS With 2" Low Heel Inlet

STANDARD WEIGHT

which is wanted.

Lead Bends

4"x10"x18"....\$ 3.48





Lead Pipe and Fittings



Lead Bends

4"x10"x12".... 2.74



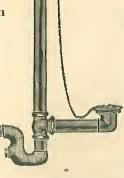
Lead Pipe



	WEIGHT	PRICE
SIZE	PER FT.	PER FT.
1/2".	2 pounds	\$.261/2
3/4".	11/4 "	$.16\frac{3}{4}$
1"	2" "	$.26\frac{1}{2}$
11/4".	21/2 "	.331/4
11/2".	2 "	$.26\frac{1}{2}$
2"	3 ''	.40

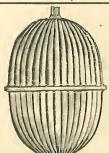
Bathroom Pipes Traps and Fittings

Combination Bath Trap, Waste and Overflow



Nickel plated on brass, with cast brass trap, with removable cleanout plug. Complete with rubber stopper, chain and floor flange.

For lead pipe connections.....\$ 4.48 For iron pipe connections.....\$ 4.69



Copper Closet

Tank Floats

As shown. Fits any standard closet flushing mechanism Size 4"x5"

Price......\$.49

Bath Supply Pipes



Brass Nickel Plated. Threaded for iron pipe connections. Complete with flanges. ½" Iron Pipe size, pair.....\$ 1.24

Lavatory Floor Supply Pipes



Brass nickel plated, threaded for iron pipe connections, complete with flanges and reducing couplings to fit basin cocks. 3/8" Iron Pipe size, pair..........\$ 1.43



Nickel plated on brass. Complete with rubber stopper, chain and floor flange.

For 1¼" lead pipe connections....\$ 2.24

For 1¼" iron pipe connections.... 2.45



Iron Drive Ferrules

2"								\$.12
4"								.20

Closet Floor Flanges

Cast brass closet floor flange. 6½″ outside diameter, 4½″ inside diameter.

Rubber Closet Tank Balls



Standard thread. Attaches to any valve stem. Stops leaky closets due to broken balls.

SIZE 2"														лсн .24
21/4"														.25
21/2"	•					٠						4		.27
23/4"	۰	٠	٠	٠	٠	٠	٠	•	٠	٠	٠	٠	•	.50

Lavatory Wall Supply Pipes

Brass nickel plated, threaded for iron pipe connections, complete with flanges and reducing couplings to fit basin cocks.

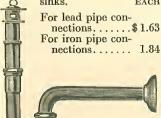
3/8" iron pipe size, pair.....\$ 1.39

Bath Trap



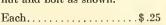
P Traps

Nickel plated on brass. Size 11/4", for lavatories or sinks. When ordering specify whether to be used for lavatories or



Cock Hole Covers

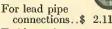
To cover holes in lavatories, sinks and laundry tubs, when only one bibb or faucet is used. Nickel plated. Complete with nut and bolt as shown.



Bibbs and Compression Stops

Long S Traps

Nickel plated on brass. Size 1¼", for lavatories.

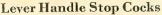


For iron pipe connections..

Special Extra Long for Sinks to allow sink to be set 36" from floor.

For lead pipe connections.. \$ 2.35

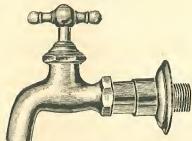
For iron pipe connections.. \$ 2.56





Solid Brass with Flange

Compression Plain Bibbs

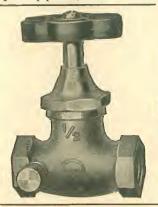


Nickel plated plain compression bibbs with adjustable flange. Threaded for ½" iron pipe connections.

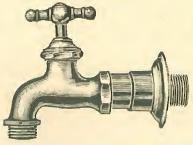
Lever Handle Stop and Waste Cock



Solid Brass $\frac{1}{2}$ iron pipe size, each.....\$.61



Compression Hose Bibbs with Flange



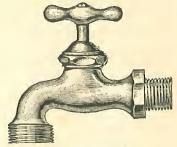
Nickel plated hose compression bibbs with adjustable flange. Threaded for ½" iron pipe connections.

White nickel finish, 1/2", 5/8" or 3/4". Garden hose fits these cocks. ½" iron pipe size, each.....\$ ¾" iron pipe size, each.....

Wheel Handle Compression Stop and Waste

With Renewable Style Disc $\frac{1}{2}$ iron pipe size, each.....\$.68 3/4" iron pipe size, each.....

Hose End Compression Bibbs



Nickel Plated

1/2"	iron	pipe size, each \$ pipe size, each	.88
3/4"	iron		1.06
		Polished Brass	

 $\frac{1}{2}$ " iron pipe size, each......\$ 34" iron pipe size, each.....

Bibb Washers



Beveled edge, made of pure rubber and long fibre asbestos, can be used for either hot or cold water. Fit any

make compression bibb, bath cock, basin cock, or sill cock.

3/8"													\$.10	dozen
1/2"	٠.				 								.13	dozen
5/8"					 	. ,							.17	dozen
3/4"	٠.									,			.21	dozen

Wheel Handle Compression

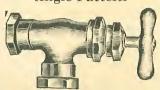


Bath Cock

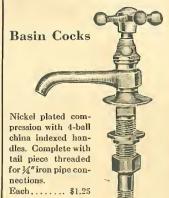
Nickel plated compression, with 4-ball china indexed handles. Complete with nickel plated ball offset couplings. Threaded for ½" iron pipe connections.

Each.....\$ 3.57

Compression Stops Angle Pattern



Nickel Plated 34" iron pipe size, each...\$.84
½" iron pipe size, each...99
¾" iron pipe size, each... 1.58
Polished Brass .69 3/8" iron pipe size, each..\$ ½" iron pipe size, each... 34" iron pipe size, each.. .140

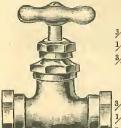


Rubber Basin, Bath, or Sink Stoppers

With nickel plated ring. Diameter 11/8", 11/4", 13/8", 11/2". Specify diameter wanted.

Each.....\$.06

Compression Stops—Straight Pattern



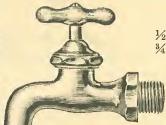
Nickel Plated

- 3/8" iron pipe size, each...\$.84
- ½" iron pipe size, each... .99 ¾" iron pipe size, each... 1.58

Polished Brass

- 3/8" iron pipe size, each . . . \$.69
- ½" iron pipe size, each... .84
- 3/4" iron pipe size, each... 1.40

Plain End Compression Bibbs



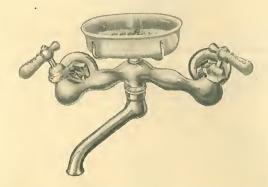
Nickel Plated

- 1/2" iron pipe size, each.\$.78
- 3/4" iron pipe size, each. .94

Polished Brass

- ½" iron pipe size, each\$.66
- 3" iron pipe size, each .83

New Style Combination Sink Fixture

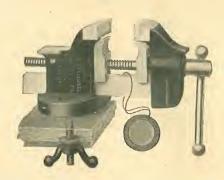


Blends the hot and cold water to desired temperature. Spout swings to either right or left. Highly nickel plated with china handles, marked hot and cold. China soap dish with drain outlet. Has adjustable flanges, will fit any sink with standard drilling. Furnished for 1/2" iron pipe threads only.

Price.....\$ 7.50

Combination

Vise



Especially constructed for the shop and home. Has hardened steel jaws, 3'' wide, opening $3\frac{1}{4}''$. Pipe jaws have milled teeth hardened, holds pipe from 1/4" size to 11/4" size. Pipe jaws are removable allowing use of straight jaws to full capacity. Comes complete with swivel attachment.

A vise without a vice.

Price.....\$ 4.13

Plumbing and Pipe Fitting Tools



Oster Bull Dog Die Stocks

For Cutting and Threading Pipe

The easiest operating die manufactured. Has the following exclusive features: (1) Self-locking Dies, (2) Self-locking Guides, (3) No Resetting, (4) No loose Bushings; No Small Parts. Each die has a double taper, forming a lead which causes them to start easily on the pipe.

Should be in every workshop for piping jobs.

No. 101—Cuts 1/8", 1/4", 3/8", 1/2" and 3/4" \$	9.10
No. 102—Cuts ¼", ¾", ½", ¾", 1" and 1¼"	11.90
No. 103—CutsI", $1\frac{1}{4}$ ", $1\frac{1}{2}$ " and 2 "	15.40
No. $104\frac{1}{2}$ —Cuts $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ ", $\frac{1}{4}$ ", $\frac{1}{4}$ ", $\frac{1}{2}$ ", $\frac{2}{4}$ "	19.60

Armstrong Hinged Pipe Vises

A quick action pipe vise. Holds pipe, rods and bars. Permits easy quick removal sideways of long pieces. Malleable iron with steel jaws. Just the thing for piping work. Junior holds from 1/8" to 11/4"

pipe. No. 2 holds from $\frac{1}{2}$ " to $4\frac{1}{2}$ " 3.50

Warnock Simplex Strap Wrench





Detroit Blow Torch

For soldering, burning off old paint, thawing frozen water pipe, tempering tools, vulcanizing automobile tires. A necessity in every home, workshop or garage.

A portable blast furnace giving intense heat wherever you need it. For plumbing repair jobs around the home. Pays for itself first time used.

Made of brass and solid bronze with non-heating handles and attachment for heating soldering iron.

1	Pint										 						S	3.71
1	Quart.																	3.85

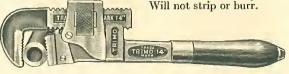
Plumbers' and Tinsmiths' Solder



Bars weigh about 1½ pounds each. Price per bar.....\$.60

Trimo Pipe Wrenches

A very good, well known, widely used pipe wrench. Has great strength and durability. Takes strong grip on pipe without crushing. Readily releases hold. Made of steel with hardened jaws.



	E	EACH
6" Takes Pipe	½" to ½"\$.90
8" Takes Pipe	½" to ¾"	1.01
10" Takes Pipe		1.13
14" Takes Pipe		1.58
18" Takes Pipe	1/4" to 2"	2.25
24" Takes Pipe		3.26
36" Takes Pipe		6.08
48" Takes Pipe	1" to 5"	9.00

Genuine Stillson Pipe Wrenches

Well known, reliable pipe wrench used by plumbers and steamfitters. Made of good quality tool steel. High grade in every way. Made to stand

O Dad		
		EACH
6" Takes Pipe	1/8" to 1/2"\$.90
8" Takes Pipe	½" to ¾"	1.01
10" Takes Pipe	18" to 1"	1.13
14" Takes Pipe	24" to 122"	1.58
18" Takes Pipe	%" 10 2"	2.25
24" Takes Pipe	1/4" to 21/2",	3.26
36" Takes Pipe	1/4" to 31/2"	6 08
48" Takes Pipe	1" to 5"	9.00

Barnes 3-Wheel Cutters

Cuts off pipe or tube by turning only one-third of way around. Malleable iron. Has 3 cutting wheels,



No. 1 Capacity	½" to 1" pipe. \$ ½" to 2" pipe. 2½" to 4" pipe. 1½" to 4" pipe. 1	2.37
No. 2 Gapacity	1/2" to 2" pipe	3,15 0.50
110, 4 Capacity	272 to 4 pape	0.50

Detroit Plumbers' Gasoline Furnace

Produces hot blue flame. Melts lead or solder quickly. Heats soldering irons. Heavy, durable construction. Has self-contained brass pump. Top removable so that furnace can be used as field or camp cook stove.

Capacity 1 gallon \$ 8.08

Lead Melting Pots

Made of cast iron. Very durable. Made to fit Detroit Plumbers' Gasoline Furnace or any other

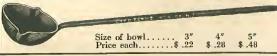
of similar type. 4" Diameter . . \$.35 6" Diameter..



hard use.

Lead or Babbitt Melting Ladles

Wrought iron bowl and handle, with two pouring lips.



Rubber Force Cup With Wood Handle

Handy clean out pump that saves plumber's bills. Forces out stoppages and cleans waste pipes, closets, sinks, wash bowls and bath tubs. Anyone can operate it. Heavy rubber cup, complete with handle.

Price......\$.35

Asbestos Joint Runners

For pouring lead into horizontal soil pipe joints. Fits close up to mouth of hub. Lead cannot leak out. Easily attached. Made of strong asbestos with wrought iron pouring lip and clamp.

Each.....\$ 2.35

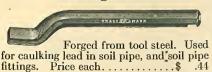
Plumbers Oakum

For caulking soil pipe and soil pipe fittings. Best quality, heavily tarred.

Price per pound..... $$.09\frac{1}{2}$



Caulking Chisels



Soldering Coppers

(EXTO)

Forged from pure bar copper. With wrought iron handle. Weight as given, is weight of copper end. Furnished complete with wooden handle.

Weight:	1 lb		 					.\$.43
	1½ lb		 		 				.54
	2 lb		 	٠.	 				.80

Yarning Chisels



Miscellaneous Tools For Farm and Home

Goodell-Pratt Hand Drill

Takes drills up to ¼", round shank. Double gears, cut teeth, two speeds and three-jawed chuck.

Price....\$ 2.31

Goodell-Pratt Breast Drill

One of the handiest tools for workshop, farm or garage. Drills up to ½" diameter through wood, iron or steel. Cut gears. Malleable iron frame, adjustable breast plate. Chuck has two sets of jaws for round and square shank drills.

Price.....\$ 4.62



Tool Grinders for Shop and Home



Price..... \$ 5.50

No. 34 Grinder is a moderate priced grinder, especially adapted for the home.

Easily turned, carries a 4 in. diameter, ¾ in. thick fine Vitrified long wearing wheel; complete with specially designed guide for sharpening scissors, shears, knives, etc. Clamps to bench or table.

Price..... \$ 2.40



Simonds Hack Saw Frames

A necessity in any home or workshop to cut pipe, bars or through meat bones. Non-adjustable. Holds 3" long blades. Nickel plated finish, A strong substantial





12" long.....

Hygrade Hack Saw Blades

Made of tungsten steel, flexible back, ½" wide, 18 teeth to inch for general work; 24 teeth to inch for pipe, etc.

8"	lo	ng	ŗ.,	.\$.38	per doz.
						per doz.
					.72	per doz.

Keystone Adjustable S Wrenches



A strong, handy wrench for work in tight places. Standard the world over.

64	٠.																												.\$.54	each
8																															each
10	,	Ī	Ī	Ī		•	Ī	Ī	Ī	Ī					·	·	Ī	Ī	Ī	Ī	•		Ī	•	•	•	•	۰	•	81	each
12"	,		Ī	·	Ĭ	Ī		Ĭ	Ī	Ť	•	٠		ĺ	Ī	Ĭ	•	Ī	Ì	Ť	•	•	ì	•	•	•	•	•		1.21	each
																														1.62	





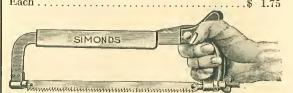
Cordwood Circular Saws

Machine ground, sharpened and set, ready for use. Furnished regularly with 13%" bore. In ordering specify bore required.

					EACH
24"				.\$	4.92
26''					5.76
28"					6.72
30"					7.68

Simonds Hack Saw Frames

Adjustable to hold 8", 10" or 12" long blades. Extra Strong Nickel plated finish and has rubberized pistol grip. Made to stand long, hard use.



Coes Genuine Knife Handle Wrench

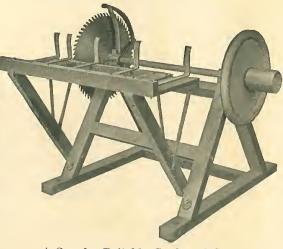


A strong, handy wrench for work in tight places. Standard the world over.

Forged Steel Body, Case Hardened Jaws, Hardwood Handles. Used by high grade workmen everywhere.

8"	 	.86 each
10"	 	1.04 each
12"	 	1.33 each
15"	 	1.79 each
21"	 	2.74 each

KracKerjacK Cordwood Saws



A Sturdy, Reliable Cordwood Saw

Frames are made of heavy lumber secured by ample irons. The frame is rigid and will maintain perfect alignment. A tilting table holds the stock as it is cut. Shaft is $1\frac{1}{2}$ " in diameter. Bearings are large and well babbitted. An ample saw guard protects the worker. A properly proportioned balance wheel assures steady Saw capacity is from 16" to 30". 3 H.P. is required for economical operation. Speed recommended is from 350 to 1000 R.P.M. Cordwood saws are made for cross cut sawing only.

Shipped knocked-down.

Price complete without saws.....\$ 28.70

Hitch a KracKerjacK gasoline engine to a KracKerjacK Cordwood Saw and turn that wood lot into money.



Price \$115.39 Complete

Price, as quoted, is for plumbing fixtures as shown and includes one Cambridge Lavatory, one Otsego Bath Tub, in either 41/2' or 5' length, one Superior Closet Combination with white sheet celluloid covered seat. This makes an extremely attractive bathroom outfit and one that will give years of satisfactory and enjoyable service.



Price \$78.48 Complete

Price, as quoted, is for plumbing fixtures as shown and includes one Sunapee Lavatory, one Seneca Bath Tub in either 4', 4½' or 5' lengths, in either 26" or 30" widths and our Perfection Closet Combination with five-year guaranteed mahogany finished seat. A modern and attractive bathroom, moderately priced.

Bathroom and Kitchen Equipment **FOREWORD**

Modern Plumbing uses wrought iron and cast iron pipe only. Lead pipe and solder joints have, for the most part, been discarded. As a result any man, handy with tools, can install a good, workable

sanitary system.

2. In selecting our line of plumbing materials great care has been exercised to select only the best. Our enameled and vitreous wares are of the very highest type and finish. Our brass goods represent the highest type castings and tubings, heavy, well nickel plated, carefully finished, guaranteed in every respect. Plumbing Fixtures are bought for a lifetime. Only the best are good enough for your home.

3. In comparing prices note that our prices include the cost of delivery, which in this class of materials is a large item.

terials is a large item.

4. Important-in many cities plumbing ordinances exist and where these exist, it is imperative that they should be consulted and complied with in detail. Such ordinances exist for the protection of the health of the individual and the community.

General remarks:

- a. Select material only of sanitary design and of the best quality.
 b. Use cast iron pipe drains within the building.
 c. Allow ample pitch in all waste pipes.
 d. See that all soil pipe joints are thoroughly caulked—they must be absolutely watertight and
- e. Any ventilating used should connect with main stack which in itself should be carried well above the roof and be so located as to avoid any possible contamination of the air in sleeping chambers. In laying out plans for water pipes, arrange so that the whole system can be thoroughly drained. Avoid all possibility of pockets and pitch all pipe.

 Trap the whole system at the point where the drainage leaves the cellar.

g. Trap the whole system at the point where the drainage leaves the cellar.
h. In rural installations and in the absence of a sewerage system, care must be used in the location and installation of cesspools. In particular, be absolutely sure that such system is so located and installed as to avoid any possible contamination of water supply. This is most important. If interested in the installation of a septic tank write your State Agricultural Department for plans and specifications.
i. When in doubt consult us. We shall be pleased to help you with your problems.



PERFECTION CLOSET

Absolutely the best closet value. Light in weight, yet practically unbreakable. Tank is made of a dense impervious mineral, watertight product of great strength and durability; not affected by any water conditions. Top may be removed and dropped without fear of breaking. Tank is in white celluloid enamel of beautiful finish. First grade flushing mechanism and white china lever. Bowl of white china, washdown pattern, superior mahogany finished seat and cover with solid brass hinges heavily nickel plated. Nickel plated brass slip joint elbow from tank to bowl. Supply pipe to floor threaded for iron pipe connections with flange. Nickel plated floor screws and washers.

Price complete\$	26.82
With white celluloid seat and cover	31.78



Royal Closet

["White Enameled (outside and inside) cast iron tank, with highest grade flushing mechanism and white china lever. Bowl of white china, washdown pattern. Mahogany finished seat, brass hinges heavily nickel plated, nickel plated brass slip joint elbow from tank to bowl. Supply pipe to floor threaded for iron pipe connections with flange. Nickel plated floor screws and washers.

Price complete		32.01
Price complete with white celluloid	seat	36.97



Winfield Closet

Solid Oak Tank, copper lined inside, with highest grade flushing mechanism and white china lever. Bowl of white china, washdown pattern. Solid oak seat, solid brass hinges heavily nickel plated, nickel plated brass slip joint elbow from tank to bowl. Supply pipe to floor threaded for iron pipe connections with flange. Nickel plated floor screws and washers.

Price complete.....\$ 25.58

Closet Tanks

Why put up with an old, worn out, leaky closet tank when a new one can be delivered to your R. R. Station for so little money.



Royal Closet Tank

White Enameled (outside and inside) cast iron tank. Highest grade flushing mechanism and white china lever.



Winfield Closet Tank

Solid Oak Tank, copper lined inside with highest grade flushing mechanism and white china lever.

Price complete.....\$ 12.01



Superior Closet

Genuine White Vitreous China Tank, with highest grade flushing mechanism and white china lever. Bowl of white china, washdown pattern. White celluloid covered seat, brass hinges heavily nickel plated, nickel plated brass slip joint elbow from tank to bowl. Supply pipe to floor threaded for iron pipe connections with flange. Nickel plated floor screws and washers. This is a DeLuxe combination, superior in quality and appearance.

Price complete. \$ 37.50

As described above, except mahogany finished seat:

Price complete. \$ 32.70



Closet Seats

Why put up with a split, cracked, rickety old seat when a new one costs so little?

Strong, well made closet seats with solid brass, heavily nickel plated hinges and fittings. Fit any closet bowl. Come in solid oak, golden oak finish, mahogany finish and in white, celluloid covered.

Solid Oak (Golden	Oak	Finish).	 \$	2.88
Mahogany Finish. White celluloid			 	3.24
White celluloid			 	8.00



Superior Closet Tank

Genuine White Vitreous China Tank with highest grade flushing mechanism and white china lever.



Perfection Closet Tank

Most practical closet tank made. Greatest value for the money. Made of a dense, impervious mineral, water-tight product of great strength. Practically indestructible. White celluloid enamel of beautiful finish

Price complete...... \$ 12.40



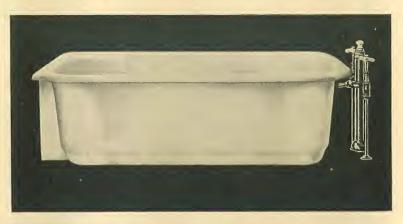
Closet Bowls

Oneida De Luxe Bath Tub

This elegant, built-in style Bath Tub is cast iron with heavy coats of porcelain enamel inside and outside. Furnished with a heavily nickel plated solid brass waste and overflow with china lifting knob and heavily nickel plated solid brass supply pipes. Nickel plated indexed bath cocks with china handles, outside of tub.

This tub sets up against the back and end walls and fits tight to the floor. It is therefore strictly sanitary and easily kept clean. Dirt or other foreign substances cannot collect at the end, beneath or behind the tub. It is very attractive and durable, a fixture which greatly adds to the appearance of the bath room. Can be furnished for either right or left hand corner. Picture shows tub for left hand corner. State which is wanted when ordering. This is very important.

	PRICES COMPLETE
LENGTH	WITH TRIMMINGS
5 ft	\$ 73.02



Seneca Bath Tub

A Tub of graceful design and superior finish. Enameled inside and over the rim with clear white porcelain enamel. Painted on the outside one priming coat of neutral color. Length as specified. Width over rim 30 inches. 3 inch roll rim. Mounted on legs. Fitted complete with nickel plated 4-ball china indexed compression bath cock,

3 inch roll rim. Mounted on legs. nickel plated connected waste and overflow, chain and stopper and heavy nickel plated supply pipes. Waste pipe fitted for lead pipe, or threaded for iron pipe connection as desired. For narrow bathrooms can be furnished in 26 inch width, at same price, in $4\frac{1}{2}$ and 5 foot lengths only.

Length 4 Feet 4½ Feet 5 Feet Price Complete, \$36.00 \$36.00 \$36.00 Price 29.30 29.30 29.30



Otsego Bath Tub

A super-fine Tub, of exceptionally fine finish. Enameled inside and over the rim with clear white porcelain enamel.

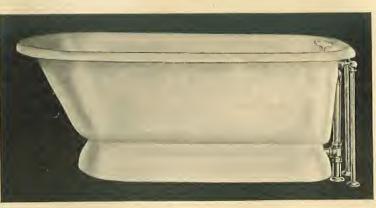
Painted on outside one priming coat of neutral color. The Otsego Tub is mounted on a base which fits tight to floor. No dust can collect under it. It is sanitary, substantial and presents an exceptionally fine appearance. Lengths as specified. Width 30 inches over rim; 3 inch roll rim. Fitted complete with nickel plated porcelain handle compression bath cock, nickel plated connected waste and overflow, chain and stopper and heavy nickel plated supply pipes. Waste pipe fitted for lead pipe or threaded for iron pipe connections as desired.

LENGTH 4½ FEET 5 FEET

Price complete . . \$43.40

Price tub only . . . 37.17

37.17





Cambridge Lavatory

20"x24". D shape Basin 111/2"x161/2"

White porcelain enameled slab and pedestal. Nickel plated Ideal waste with china index. Nickel plated compression basin cocks. 4 ball china indexed handles, nickel plated brass trap to wall. Nickel plated supply pipes to wall. Threaded for iron pipe connections with flanges. Trap fitted for lead or iron pipe connections as desired.

Price complete\$	34.49
Price bare, no trimmings	25.70



Placid Lavatory

Length on sides 17½". D shape Basin 11x15" Height of back 6"

White porcelain enameled. Overflow strainer, soap cup and back all in one piece. Nickel plated compression basin cocks, 4 ball china indexed handles. Nickel plated brass trap, nickel plated supply pipes with flanges, threaded for iron pipe connectons. Nickel plated chain and rubber stopper. Trap fitted for lead or iron pipe connections, as desired.

Price	complete	with trap and supply pipes to floor\$	17.06
Price	complete	with trap and supply pipes to wall	16.61
Price	bare, no	trimmings	11.70

Puritan Roll Rim Sink

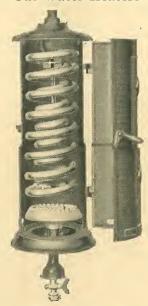


White porcelain enameled on cast iron. All in one piece with adjustable painted iron legs. Legs adjustable up to 36 in. Nickel plated plain and hose bibbs. Nickel plated brass trap, fitted for lead or iron pipe connections, as desired. Either right or left hand drain board. (Illustration shows right hand drain board).

Length over all 52". Size of sink, 20"x30". Size of drain board, 20"x24". Height of back, 12".

Price complete with trap to floor, \$ 37.77 Price complete with trap to wall. 37.10 Price bare, no trimmings..... 33.23

Gas Water Heaters



Heavy Cast Iron Jacket, with spring closing door. Double coils of heavy copper. A heater large enough for forty gallon range boilers. Supplied with burner for either natural or artificial gas. Heater is 8" in diameter and 28" high. Tapped for ½" gas supply pipe. Furnished with union couplings for ¾" cold water inlet and ¾" hot water outlet. Do not confuse this high grade heater with a single coil or cast iron coil heater.

Price.....\$ '11.04

Kerosene Oil Burning Water Heater



Where artificial or natural gas is not available, the installation of this heater gives you the convenience of hot water when you want it. Cast iron jacketed with four heavy copper coils and a noiseless and smokeless burner of high efficiency. Oil reservoir of one gallon capacity that will burn 19½ hours. Cold water inlet ¾", hot water outlet ¾". Furnished complete ready to attach to either 30 or 40 gallon range boiler.

Price.....\$ 22.40

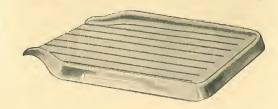


Flat Rim Sinks

White porcelain enameled on cast iron. Painted outside. With nickel plated strainer and tail piece.

SIZE											1	9]	RIC	E EACH
20"x24".														7.19
20"x30".														7.28
20"x36"	ı													11.11

If wanted for iron pipe connection in place of lead pipe connection add to the above prices 21 cents.



Drain Boards

White porcelain enameled on cast iron complete with iron bracket. Fits right or left hand side of any roll rim sink.

SIZE		PRICE EACH
18"x24"	 	\$ 6.53
20"x18"	 	6.03
20"x24"	 	7.02

The KRACKERJACK Galvanized Range Boiler



All seams riveted and welded. Galvanized inside and outside. Complete with all fittings, including cold water tube, stand and nickel plated draw-off cock. All fittings threaded for iron pipe connections.

Standard weight range boilers. Guaranteed for 85 lbs. working pressure.

CAPACITY	PRICE	PRICE
IN GAL-	COMPLETE	BOILER
LONS		ONLY
30	\$ 17.10	\$12.79
40	20.79	16.16

Extra heavy range boilers. Guaranteed for working pressures up to 150 pounds.

CAPACITY	PRICE	PRICE
IN GAL-	COMPLETE	BOILER
LONS		ONLY
30	\$ 18.93	\$ 14.53
40	23.10	18.35



White Star

Two Compartment Laundry Tray

Cast in one piece. A composition of genuine Portland cement and snow white lake sand. Rim protected with metal strip. Patent wringer guards. Shipped complete with unbreakable galvanized iron covers, nickel plated hose end laundry tray bibbs, lead trap to floor, brass waste plugs and stand of the correct height to prevent fatigue. Length 48". Width 24".

Price complete.....\$21.11

Perfect Indoor Chemical Closet

Comfort, convenience and healthfulness secured without running water or plumbing. Danger of contaminated well water is eliminated. Can be placed in any convenient room. No tools and only a few minutes required to install. Set in position and connect the vent pipe to the chimney—that's all. Made odorless and sanitary through ventilation and the action of the special chemical which is mixed with water and placed in container.

Outer container and pipe are attractively enameled, the inner container of galvanized steel. Complete as shown in the illustration with 7 joints 3 inch enameled pipe each 12 inches long, two 3 inch enameled elbows, a 6 to 3 inch stove pipe hole reducer and wall finish collar, toilet paper holder and roll of paper, and one can of special chemical.

Extreme size across top 15x16½ inches. Height 17 inches.

Price complete \$7.67

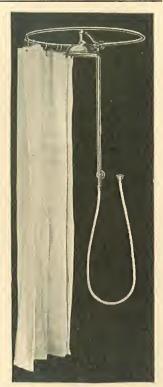
Extra chemical per gallon can....\$1.50



Niagara Shower

Place this over your bath tub and enjoy real summer comfort. A complete shower, shipped ready for installation. No tools required to install, other than a screw driver. Made of brass heavily nickel plated, with snow white duck curtain. Rubber tube 57" long, with bell end connection that fits any bath cock. Screws for attaching to wall included.

Price complete.\$ 6.90



Hercules Drain Pipe Solvent



A combination of chemicals, absolutely harmless to plumbing or plumbing fixtures, that will remove stoppages in drain pipes, whether caused by hair, lint, grease or vegetable matter. Frequent use, insures sanitary free flowing drain pipes. A trouble saver.

Packed in one-pound cans with complete directions for use.

Price.....\$.31

Graphite Pipe Joint Cement



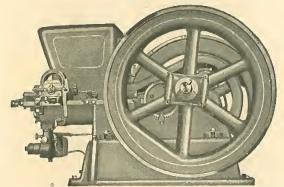
A Cement compounded of graphite and pure oil that will make threaded pipe joints that will positively hold tight and has the added advantage of allowing joints to be taken apart years after installation. Net weight one pound. Full directions for use on each can.

Price.....\$.42

Utility Engines, Pumps, and Equipment

The KRACKERJACK Kerosene Engines

Efficient, Dependable, Economical



Hitch these Jobs to a KracKerjacK Engine

1347 H.P.—Designed especially for running churn, separator, washing machine, grindstone, fanning mill, and to pump water either with our direct connected jack or with belted jack. Use it with six inch burr feed mill or drag saw.

3 H.P.—Will operate your electric light plant, 22-inch circular saw or six inch grinder, milking machine, small air compressors, two hole corn sheller, fanning mill, bone and vegetable cutter, 5-inch cane mill, 10-inch saw rig, concrete mixers, lathes, drill presses, hoists, winches. Used as starters for Diesel type engines. Is especially adapted for line shaft work.

5 H.P.—Big enough for most jobs. Will pull 8-inch corn cob crusher. Used for cutting wood on horse drawn truck. Will drive a 26-inch saw blade. Used with spraying machines, hay stacker, hay carrier, grain elevator, hoists, run a 3000 watt dynamo. Has been adopted as standard equipment by many concrete mixer manufacturers.

7 H.P.—Will pull a 30-inch cordwood saw blade. Is used as standard equipment by many hay press manufacturers. Good for 12-inch silage cutter, 10-inch corn cob crusher or 12-inch burr mill.

12 H.P.—Will run an 18-inch burr mill, 17-inch ensilage cutter with blower, 20-inch cutter with carrier, four and six roll husker and shredder, 16x18 or 17x22 hay baler, six hole corn sheller, 36 or 38-inch cut off saw, 22-inch rip saw, threshing machines with 22x36 or 15x30-inch cylinders. Operate rock crushers, handle 40-inch saw.

KracKerjacK Throttling Governor Engines burn any available fuel.

KracKerjacK Kerosene Engines waste no fuel, have no smoke in the exhaust. This complete combustion is due to the specially designed Throttling Governor Mixer used on all kerosene engines.

The KracKerjacK Throttling Governor Kerosene Engine is as simple in operation as an ordinary gasoline engine. No complicated attachments nor high compression.

By means of the throttling governor the amount of fuel taken into the engines is throttled, just as it is with a steam engine. One explosion takes place in the cylinder to every two revolutions of the flywheels. This explosion is large or small, depending upon the power used and is controlled entirely by the governor. This means that the throttling governor engine maintains an even heat in the cylinder, as explosions are regular, regardless of the load that you are pulling.

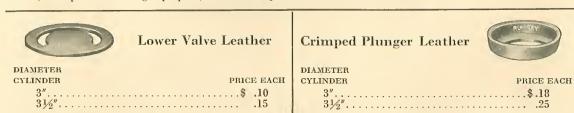
The KracKerjacK Mixer is connected by a short passage to the cylinder so there is no opportunity for Kerosene, or cheaper fuels to condense. A water valve is provided that enables water to be taken into cylinder where it is converted into steam. This steam destroys the carbon that may form in the cylinder.

There is a vast difference between "hit and miss" engines which operate on kerosene and KracKerjacK "throttling governor" engines which permit the use of any of the higher priced or any of the lower priced fuels—just as desired.

			SPECIFICA	ATIONS		
			DIAMETER OF	SIZE OF	APPROXIMATE	PRICE
H.P.	SPEED	FLOOR SPACE	FLY WHEEL	PULLEY	SHIPPING WEIGHT	DELIVERED
3	450	27x38"	21"	8x6"	480 lbs.	\$ 90.40
5	430	31x46"	26"	12x6"	690 lbs.	122.80
7	380	36x58"	36"	14x8"	1200 lbs.	181.60
19	330	46x71"	42"	22x8"	2100 lbs.	294.00

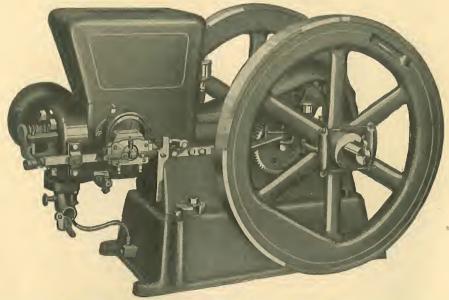
We stand back of every KracKerjacK Engine.

GUARANTEE—KracKerjacK Engines are guaranteed as to principle and design; guaranteed to develop their full rated horse-power, and guaranteed against defective workmanship and material for a period of one year, during which time we will replace, free of charge, f.o.b. our factory, any part showing defect, upon such part being returned, transportation charges prepaid, to us for inspection.



The KRACKERJACK Gasoline Engine

Efficient, Dependable, Troubleproof



There's no class of power requirement more exacting than the power demands of farming. Here all kinds of weather conditions are encountered. Varying services must be performed, varying loads carried and frequently the engine must be operated by persons with little mechanical knowledge or experience. It is to meet such conditions that the KracKerjacK Gasoline Engine has been built and it is under such conditions it has proved its value.

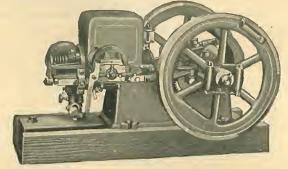
The foremost engine designers agree that the Valve-in-the-head design, as employed in the KarcKerjacK, is the most satisfactory, practical and advantageous design. Valves are placed where they are accessible and in proper relation to the combustion chamber. The valves are made extra large so the cylinder can clear itself thoroughly and quickly. This is important, for unless the valves operate properly at high speed, the engine cannot develop its full capacity.

The cylinder, which is cast together with the base, is always in perfect alignment with crankshaft. This does away with any side wear on the piston or strain on the connecting rod. The cylinder is bored, reamed and burnished, which insures a perfect fit with the piston.

Every cam, every gear that is eliminated makes that engine just that much easier to run or handle. Two ordinary gears and push rods operate the entire engine and ignition system.

Every KracKerjacK engine is tested ten hours on the testing blocks. After painting a special test is made to make sure engine is in perfect adjustment before shipment. KracKerjacK Engines come to you trouble-proof, over-powered and ready to run.

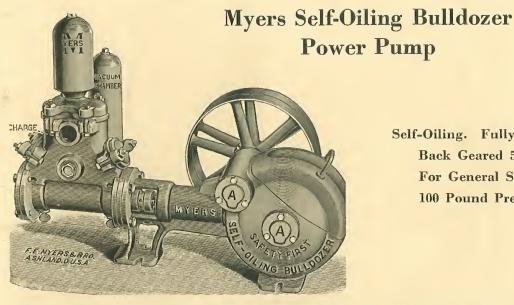






SPECIFICATIONS—PRICES

							PRICE ·
H.P.	SPEED	FLOOR SPACE	CYLINDER	DIAM. FLY WHEEL	SIZE PULLEY	WEIGHT	DELIVERED
13/4	500	20x40"	3½x5"	16"	4x4''	225 lbs.	\$ 50.63
3, sub-base	450	24x38''	$4\frac{1}{2}x6''$	22"	8x6"	465 lbs.	91.20
5, sub-base	430	26x45"	43/4x8"	26"	12x6"	690 lbs.	121.20
7, sub-base	370	35x58"	$5\frac{1}{2}$ x10"	36"	14x8"	1200 lbs.	180.00



Self-Oiling. Fully Enclosed. Back Geared 5 to 1. For General Service. 100 Pound Pressure.

This famous pump is a single cylinder, double-acting power pump for general service on Farms, Plantations, Country Estates, in Apartment Houses, Hotels, Mills, Factories, Railways, Tank Stations, or wherever from 500 to 9,000 gallons of water per hour are required against 100 lbs. pressure or 225 ft. elevation. This design has been brought out to meet the general needs of the trade for an efficient, durable pump of modern construction at a moderate price.

The power end consists of a one-piece casting which forms the base of the pump and oil reservoir, and in con-The power end consists of a one-piece casting which forms the base of the pump and oil reservoir, and in connection with a lid encloses all working parts, protecting them from dirt or injury, and securing safety of operation. This casting is completely machined at one setting for all bearings, the crosshead, cylinder head and shaft bearings, insuring alignment of all working parts. The pinion and gear are mounted between double bearings A—these bearings are renewable. Both gear and pinion are machine cut from the solid—the gear is cast iron and the pinion steel. An eccentric cast integral with the main gear operates the crosshead throughout a connecting rod which is adjustable for wear at the eccentric end, and is fitted with a renewable bronze bushing at the crosshead end. The crosshead is of large diameter running in a bored guide. From the oil reservoir in the base oil is carried by the main gear to the highest parts of the pump and by a system of channels distributed to all moving parts and returned again to the reservoir. This system of flood lubrication contributes quiet operation and long life, with a minimum of attention.

The cylinder, which is brass lined, is a one-piece casting, attached to the power end by heavy bolts. Large rubber valves on bronze grid seats are all located above the cylinder insuring priming. Suction and discharge valves are easily accessible for inspection and repair without disturbing pipe connections. Suction and discharge piping may be taken from either side.

As compared with older designs this pump has larger valves, more liberal and direct waterways, and a positive oiling system enabling it to be operated against a heavy pressure or at high speed, securing large volume and high efficiency.

Maximum Capacity 500 gals. per hour at 70 R.P.M. Usual speed 60 to 65 R.P.M.

Myers Self-Oiling Bulldozer Power Pump with Vacuum Chamber. $2\frac{1}{2} \times 3$ in. Brass Lined Cylinder. 12×2 in. Tight and Loose Pulleys. $\frac{1}{2}$ in. Brass Piston Rod. Suction and Discharge $1\frac{1}{4}$ in. Price. 53.00

Maximum Capacity 1000 gals. per hour at 70 R.P.M. Usual Speed 55 to 60 R.P.M.

Myers Self-Oiling Bulldozer Power Pump with Vacuum Chamber. 3 x 4 in. Brass Lined Cylinder. 14 x 2½ in. Tight and Loose Pulleys. 5% in. Brass Piston Rod. Suction and Discharge 80.00

Maximum Capacity 2000 gals. per hour at 65 R.P.M. Usual speed 50 to 55 R.P.M.

Myers Self-Oiling Bulldozer Power Pump, with Vacuum Chamber. 4 x 5 in. Brass Lined Cylinder. 16 x 4 in. Tight and Loose Pulleys. 11/8 in. Brass Covered Piston Rod. Suction and Discharge 2 inch. Price. 105.00

Prices of larger Pumps on application.



KRACKERJACK Pitcher Spout Pump

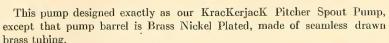
One of the most popular and serviceable kitchen sink pumps. For wells or cisterns 20 ft. deep or less. Revolving top so handle can be turned in any position. Strong and well made. Plunger and valves so made that when handle is raised, plunger trips both valves, allowing water to drain back. Tapped in base to receive iron pipe.

DIAMETER OF CYLINDER 3" 3½"	SUCTION FITTED FOR $1\frac{1}{4}''$ pipe $1\frac{1}{4}''$ pipe	PRICE IRON CYI \$ 2.0 2.2



Nickle Plated

Pitcher Spout Pump



DIAMETER	SUCTION	PRICE
OF CYLINDER	FITTED FOR	
3"	$1\frac{1}{4}$ " pipe	\$ 4.45
$\dots 3\frac{1}{2}''$	11/4" pipe	5.52
		of cylinder fitted for $1\frac{1}{4}$ " pipe





KRACKERJACK

Heavy Windmill Set Length Force Pump

Strong, heavy duty combination hand and windmill set length force pump. Can be operated by hand, windmill or pump jack. Tapped in back for 1½" pipe. Vent hole above cylinder to prevent freezing. Comes complete as pictured with 4 feet length between base of pump and cylinder. Will operate in well 30 feet deep. Under favorable conditions water can be drawn by suction a distance of 25 feet.

Cylinder should be within 15 feet or less of the water level. Best results are obtained when cylinder is below water level. Suction pipe should not touch bottom of well. It is advisable to attach strainer to end of suction pipe (or cylinder if at bottom).

Can be furnished with bolted spout faucet, in place of cock spout as shown.

Order enough 11/4" galvanized pipe to reach below water level.

If wanted with bolted spout faucet in place of cock spout add \$1.92 to the above price.



Windmill Set Length Pump

Operates by hand, windmill or pump jack. A good strong pump for farm service. Six inch stroke. Comes complete as pictured with cylinder 4 feet below platform of pump. Operates efficiently in wells 30 ft. deep. Set screw cap to allow handle in any position. KracKerjacK standard cylinder accurately bored and polished. Vent hole above cylinder to prevent freezing. When ordering pump, order enough 1½" pipe to allow cylinder to reach below water line.

SIZE OF DIAMETER OF CYLINDER PIPE
No. 4.....3"x10" 1½"

STROKE PRICE 6" \$ 8.16



Single Geared . Clamp Jack

A strongly built substantial single geared Jack. Furnished with sub-base. Attaches readily to any pump—fastens firmly. Sub-base jack rests solidly on wide spreading base. Is equally efficient as platform, horizontal, overhead or wall jack. Used extensively for operating pumps with wells, sewers, fuel tanks, storage tanks, etc. Pitmans keep perfect alignment.

Double Geared Jack

A strong, durable Jack. Main frame is of well proportioned substantial design. Clamps firmly and securely to any pump in upright position. Foot of pump gives solid support to pulley end of jack by distributing strain over four gears. Wear is reduced. Double gears produce a steady, even lift on the pump plunger, which prolongs the life of pump and jack, eliminating the side draft. Lift range 200 feet.

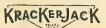
LIFTING CAPACITY

JACK GEAR RATIO 2" CYLINDER STROKE PULLEY PRICE Single Gear 4 to 1 125 to 150 ft. 5", 7!/2", 10" 13"x2" \$ 6.32 Double gear 4 to 1 150 to 200 ft. 5", 7!/2", 10" 13"x2" \$ 8.64 Speed for shallow wells 40 to 50 strokes per minute. Speed for deep wells, 25 to 35 strokes per minute.



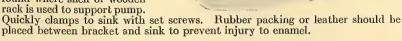
KRACKERJACK Set Length Pumps

Strong, substantially made. Has hole just above cylinder to prevent freezing. Comes complete as pictured with pump rod pipe and cylinder. Set length has cylinder 4 feet below base of platform standard, connected with 1½" pipe. Cap revolves and has set screw. When ordering this pump, order enough pipe so that cylinder can reach into well 3 feet below water line. Has 6" stroke. Diameter of the 12" 10". eter of cylinder 3"x10".



Pump Bracket

Attractive adjustable bracket that can be attached to an iron or enameled roll edge kitchen sink. Eliminates sloppy and very unde-sirable condition usually found where shelf or wooden



Price.....\$ 1.20



Superior Hydraulic Rams

MIN	IMUA	τQ 1	JANT	TTY	OF
W.	ATER	то	OPE	RAT	E.
1	to	2	gall	ons	3
3	to	6	gal	lons	3
6	to	14	gall	ons	3

LENGTH OF DRIVE Five or six times the fall

DIAM. OF

DIAM. OF DISCHARGE PIPE PRICE \$13.20 20.40 25.91

Float Valves with Float

Regulates supply of water in watering troughs, tanks and dairy drinking fountains. Float opens and closes valve. Flow of water regulated by turning set screw.

Threaded for 3/4" Iron Pipe connections. Diameter of float 12". Price complete with float.....\$ 3.39





Lunkenheimer Steel Grease Cups

Turning Cover Forces Grease on Bearings.

Cover will not jar loose.

NO.	PIPE SIZE	CAPACITY	PRICE EACH
00	1/8"	½ ounce	\$.21
		2/3 ounce	
1	$\dots 1\sqrt{4}"$	1 ounce	32
2	3/8"	2 ounce	39
3	$\dots 1/2''$	$\dots 3\frac{1}{2}$ ounce	
4	1/3"	5 ounce	

Hudson Automatic Bowls



The Hudson Bowl is the simplest, cleanest, most sanitary bowl on the market.

The Hudson Bowl is furnished for attachment to wood stanchions or steel stanchions of any design.

The Hudson Bowl will operate under any pressure. The Hudson Bowl is so designed that supply can be piped from the side or from above or below with equal ease and economy.

The Hudson Bowl has no angles, grooves or corners.

It is perfectly smooth.

The valve lever and valve are positive and cannot

clog.

The bowl itself can be instantly detached, cleaned and replaced.

Extra Heavy Cesspools



Size 12"x12". With 4" outlet. Complete with double grating. Each.....\$ 3.94

Iron Foot Valves and Strainers



Screwed on bottom of well or cistern suction pipe. Acts as check valve. Keeps out leaves, sticks and refuse. Every pump should be equipped with one of these. Heavily galvanized.

11/4"	 						\$.87	each
11/2"								1.15	each
0 1/									each

Strainers

For Bottom of Suction Pipe.



This type suitable for shallow wells. Screwed on end of pipe keeps out leaves, sticks and other refuse.

		*
SIZE	BLACK	GALV.
11/4"	\$.39	\$.59
1½"	59	.78
2"	78	B 1.17

Drive Well Points



Made of first quality wrought iron pipe galvanized after holes are punched. Malleable Iron driving point, swaged and riveted in pipe, will not break when being driven. Covered with No. 60 Gauze for general use. No. 100 for driving in quicksand.

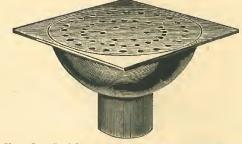
PIPE SIZE	LENGTH	NO. 60 GA	UZE NO.	100 GAUZE
$1\frac{1}{4}''$	24"	\$ 1.60	each\$	3.54 each
$1\frac{1}{4}$ "	30"	2.05	each	4.43 each
$1\frac{1}{2}''$	24"	2.13	each	4.18 each
$1\frac{1}{2}$ "	30"	2.66	each	5.23 each
2''			each	5.76 each
2''	30"	3.98	each	7.10 each



Extra Heavy Drive Caps For Driving Well Points

FOR :				-		_	_																	RICE
114"																							.\$.38
11/2"	•													٠	٠	٠			•					.47
2"	٠	٠.	٠	•	٠	٠	•	٠	•	٠	٠	•	•	•	٠	٠	٠	٠	•	•	-	٠		.67

Heavy Cesspools



Size 9" x 9" with 4" outlet. Complete with Bell trap. This is the ideal sized cesspool to use for cellar, stable or garage drainage or any place where heavy trucks or wagons do not pass over the grating.

Price.....\$ 1.50



Glass Oil Cups

Bronze parts polished. Sight Feed with accurate feed regulation.

NO.	PIPE SIZE	CAPACITY	PRICE
0	1/8"	. 5% ounce	\$ 1.26
1	1/4"	.1 ounce	 1.37
		$.1\frac{1}{2}$ ounce	1.47
$2\dots$	3/8"	$.2\frac{1}{2}$ ounce	 1.58
3	3/8"	.4 ounce	 1.79
4	3/6"	.5 ounce.	 2.21

YOUNEED KRACKERJACK Silk Fibre Roof Cement It has so many wonderful uses

Why KRACKERJACK Cement is Better

Unlike most roof cements "KracKerjack" Silk Fibre Roof Cement is made on a pure vegetable base-not on a coal tar base. This gives it a tough, elastic, rubber-like quality that makes it easy to handle and prevents it from melting and running in hot weather or becoming brittle and cracking in cold weather. It sticks-and it will stay stuck for an indefinite period. Roofs put on over 25 years ago (1898) are still in splendid condition and show no noticeable change except for the formation of a thin protective covering on the outside. How many roof cements can show such a record!

Let us tell you about this remarkable cement. It is the finest all around waterproofing material made for fixing a thousand all around waterproofing material made for fixing a thousand and one places like leaky roofs, tanks, silos, joints, etc. It will stick stronger than glue or tar to tin, wood, metal, felt, slag, shingles or cement. And it will stay stuck, making a roof, tank or silo completely waterproof. It is so good, we give an unqualified guarantee of absolute satisfaction, or your money back—you to be the sole judge. You'll be mighty glad, once you give it a trial, that we introduced it to you. And you'll always thereafter, keep a drum handy.

"KracKerjacK Cement" comes in both liquid and plastic form. The liquid form you paint on with a coarse brush or a broom. Put it on an old roof that has commenced to go to pieces and see the result. It will stop leaking, and the life of the roof will be continued for a long time. A coat over any kind of a paper or composition roof will give it a remarkably long life. Paint a leaky gutter and it will leak no more.

In the plastic form it is indispensible about a home or farm. You never know, after you get a can, how you ever got along without it. It's best handled with a small trowel, though a broad knife or flat stick will do. If the roof leaks around the chimney you can repair it permanently in no time. If winter comes on, and the weather gets in around the base-boards, you can stop it at once. If a watering trough leaks, plug the hole with a little cement and your troubles are over. Around buried sewer or water pipe joints, it works finely. If the silo leaks you can stop it easily. For ordinary work from 1 to 1½ gallons of the liquid cement will cover 100 square feet. Gravel or felt roofs take about three times as much.

"Can't be beat" for preventing leaks around chimneys, flashings, building walls, cornices, skylights, gutters, valleys, etc. Forms a joint between wood, metal or masonry that takes up the expansion and contraction caused by changing weather, and will absolutely stop leaks.



In liquid form just paint on with a brush or broom. Stops leaks in old roofs. Makes new roofs last a whole lot longer. Sticks to paper shingles, wood, tin, metal, felt, composition roofings, or any other material.

Make your Old Roofs Like New -- At these Low Prices with KRACKERJACK Cement

Remember—we guarantee satisfaction—and you are the sole judge. If it doesn't do the work, you get your money back. Don't wait until the roof gives out and the ceilings are spoiled. Get a can each in liquid and plastic form and when the trouble starts you'll be ready. It may save many dollars in damage prevented. The cost is small and the cement absolutely will not deteriorate in the can or barrel. Don't delay. Order now. We guarantee your satisfaction.

Liquid Form-Red or Black

1 gallon	Can\$.92 per can
5 gallon	Can	4.10 per can
28 gallon	Barrel	21.56 per barrel
50 gallon	Barrel	36.00 per barrel

Plastic Form-Red or Black

2	pound	Can.				 						 	\$.22	per	can
5	pound	Can.				 				ŀ		 			per	can
10	pound	Can.			 							 				can
25	pound	Can.			 				٠		. ,	 		2.24		
50	pound	Can.		٠.	 							 ٠.		4.32		
100	pound	Can.	: -		 		٠.					 		7.04	per	can
800	pound	Barre	l.							٠				51.20	per	barrel



Our Guarantee: We guarantee absolute satisfaction or money refunded without qualification—you to be sole judge. This is the fairest, broadest, most liberal guarantee that can be made in any product. It proves that this cement is right.

Mighty handy for mending gutters, eve troughs, elbows, and conductor pipes. To mend a bad leak in a tin trough or roof, clean the surface where the leak occurs, apply a thin coat of liquid cement, lay a piece of cotton cloth over the cement, then give it a second cement coat. There will be no more trouble there for years to come.





KracKerjacK Roof Cement comes in cans and barrels, from one pound to 800 pounds in size. You can get any amount you want and the price is right.

Qualities of KracKerjacK Cement

Tough—Elastic—rubber-like.

Will not melt and run in hot weather.

Will not crack and loosen in cold weather.

Stays elastic and rubber-like for an indefinite period.

Easy to handle—no special skill required to use.

Has a hundred uses about the home or farm.

You are the judge as to whether it does everything we claim for it. If it doesn't you can get your money back.

A crack in a silo stuffed with plastic KracKerjacK Cement is permanently repaired. It is no trouble at all to apply. Keep some around. It will save you trouble.



Pulleys, Shafting and Belting

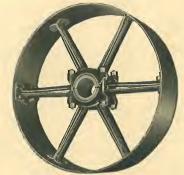


Split Wood Pulleys

With interchangeable bushings for any size shaft as follows: 3" diameter from $\frac{1}{2}$ " to $\frac{1}{2}$ "; 4" diameter from $\frac{1}{2}$ " to $\frac{2}{15}$ "; 8" diameter and larger, $\frac{3}{4}$ " to $\frac{3}{4}$ " to $\frac{3}{4}$ ".

DIAMETER	WIDTH OF FACE	PRICE
IN INCHES	IN INCHES	EACH
3		2.10
		2.18
		2.10
		2.18
		2.48
		2.18
		2.25
	6	2.63
8		2.33
8	6	2.78
10	4	2.55
10	6	3.08
		3.00
		3.68
		3.45
		4.28
		3.90
	4	4.88
	4	
18		5.48

In ordering specify size of shaft or bore of pulley, also whether crown or straight face is desired. Prices on sizes not listed upon request.



Split Steel Pulleys

With interchangeable bushings for any size shaft as follows: 3'' diameter from $\frac{1}{2}''$ to $1\frac{7}{16}''$; 4'' and 5'' diameter from $\frac{1}{2}''$ to $1\frac{15}{16}''$; 6'' diameter and larger, $\frac{3}{4}''$ to $\frac{115}{16}''$; $\frac{1}{16}$

10		PRICE								
DIAMETER	WIDTH OF FACE									
IN INCHES	IN INCHES									
3	3	.\$ 2.16								
	4 ,									
		0.00								
		0.50								
4	6	. 2.79								
6		. 2.97								
	6	0.00								
	4									
8	6	. 3.92								
	4									
	6									
	4	1.00								
	6	1 (0								
14	4	. 4.68								
14	6	. 5.55								
	6									
		6.00								
18	6	. 6.89								

In ordering specify size of shaft or bore of pulley, also whether crown or straight face is desired. Prices on sizes not listed upon request.

Friction Clutch Pulley for KracKerjacK Engine

Recommended for use on KracKerjacK Gasoline and Kerosene Engines of 5 horse power or larger. A clutch pulley allows the operator to start engine free, i. e.: without load; also to throw out the engine without stopping engine.

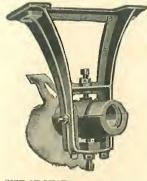
F	DIAMETER OF PULLEY	WIDTH OF PULLEY	
	DIAMETER OF PULLET		
	IN INCHES	FACE IN INCHES	PRICE
No. 1 Clutch for 5 to	o 7 H.P. 10"	6"	\$ 16.93
Engines	12"	6"	17.40
	18"	6"	21.34
No. 2 Clutch for 7 to	o 12 H.P. 10"	6"	\$ 19.38
Engines .	12"	6"	20.37
	18"	6"	22.20
	24"	6"	25.87



Standard Flat Boxes



Genuine Shaw Compression Shaft Couplings



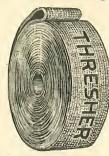
Universal Ring Oiling Hangers

Double braced four way adjustable boxes babbitted with highest grade babbitt metal

SIZE OF SHAFT	ADJUSTS FROM	ADJUSTS FROM
DIAL OF SHAPT	7" TO 9"	10" то 12"
15#		
15"	\$ 3.24 each	\$ 3.25 each
$1\frac{3}{16}''$	3.65 each	4.06 each
$1\frac{7}{16}$ "		4.47 each
$1\frac{15}{16}''$	5.68 each	6.09 each

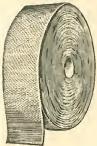


Endless Stitched Canvas or Thresher Ensilage Cutter Belts



-			-	_
- 10	OI	ur	· P	lv

WIDTH	LENGTH	PRICE EACH
5″	 . 50 feet	.\$ 17.15
5″	 . 75 feet	. 24.85
5″	 . 100 feet	. 32.90
6"	 . 50 feet	. 19.95
8"	 . 75 feet	. 37.45
8"	 . 100 feet	49.35





Rubber Belt

Friction surface, which reduces slippage to a minimum. A rubber belt known for its wearing qualities.

2"	3-ply.					\$.19 per foot
3"	3-ply.						.26 per foot
4"							.37 per foot
6"	4-ply.						.56 per foot
6"							.83 per foot
8"							.71 per foot
8"							1.05 per foot
10"							.88 per foot
10" 12"							1.33 per foot
12"	4-ply.	• • • •	• • • •				1.05 per foot
	o-pry.	and.	rilion	 not	listed	write for	1.58 per foot
PU	u sixes	anu	рцев	пос	nstea,	write for	prices.

Shafting

	F	ξo	u	n	d	(Ç	o	lo	ł		Γ) r	a	V	71	1	i	in		8	}-	1	0	01	ľ]	l (<u>,</u>	2	0	,	1	e	n	g	th	s.	
		ΙZ																											Ē	F	ΙI	C	E	P	E	R	F	.00	т
,	16	, ·	٠	٠	٠			٠	٠																 												\$.1	
1	16	p.	٠	•	•	-	•	٠	٠	٠	٠	٠	٠	٠			•	:	٠	٠	+	٠				٠	٠	٠	٠	٠						٠		.2	_
i	7 16 15	<i>u</i> •	•	1	٠	٠	•	•	٠	*	۰	٠	•	•					٠	٠	•	-				٠	-	٠	٠					•	٠	٠		.3	
_	16	•	٠	٠	•	•	٠	٠	٠	٠	٠	٠	٠	,				٠	٠	٠	٠	•	٠			٠	٠	٠	•					•	٠	٠		.0.	2

Safety Shaft Collars

51	ZE	C	Þ	7			F	F	RI	C	E	3	EACH	PRI	CE E	ACH
S	H.	\ E	T	*						20	SC)	LID		SPLIT	c
1	5 #										\$.28		\$.42	
1	3 1												.36		.54	
Į													.45		.68	
Ιį	6					٠			,				.63		.95	



KRACKERJACK

Stitched Canvas Belt

1½" 2"	4-ply	.\$.10 foot												
_	4-ply	13 foot												
2½" 3"	4-ply	16 foot												
	4-ply	19 foot												
4"	4-ply	24½ foot												
6"	4-ply	35 foot												
6"	6-ply	52½ foot												
8"	4-ply	49 foot												
8"	6-ply	67½ foot												
10"	4-ply	54 foot												
10"	6-ply	87 foot												
12"	4-ply	68 foot												
12"	6-ply	. 1.02 foot												
For	sizes and plies not listed write for	r prices												

Utility Brand Leather Belt

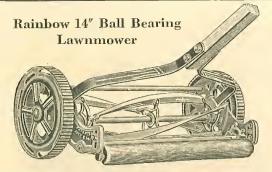
									_			-	_		_	_	-	_	_			_			
VIDTH																			P	P	I	C	E	P	ER FOOT
NCHES																					8	1	N(3	LE PLY
1																							S	2	.14
$1\frac{1}{2}$														i	Ì				ì		Ì				.211/2
2										ì		į		ì	ì		ì	ì	ì			Ì			.29
$2\frac{1}{2}$.36
3						,	,	·																	.43
$3\frac{1}{2}$.54
4																									.57
5																									.72
6																									86

Recommended for service under dry conditions only. Double belting twice the price of single belting. Prices of wider belts and of water-proof leather belting, on application.



Economy Lace Leather

	Containe attivities	.0
WIDTH	LENGTH PER STRIP	PRICE PER STRIP
1/4".	36½"	\$.05
16		
	60"	
1 / 1/		



Drive Wheels—8". Open type. Five spokes. Gears

protected.

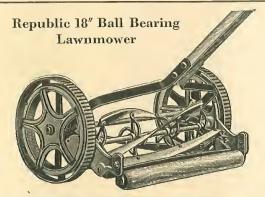
Reel—5½" in diameter. Solid steel shaft. Malleable spiders, fitted and riveted.

Blades—Four crucible tool steel, tempered and hardened.

Gears—Double. One in each wheel. Flat steel pawls. Ball Bearings—Self-adjusting. Never requiring care nor attention.

Bottom Knife—Tool steel, self-sharpening. Parts-Malleable and cast. Machined to dimensions to insure accuracy and long service.

Price..... \$ 9.38



Drive Wheels—10½". Open spoke design. Runs on steel spindles. Gears protected.

Reel—6" in diameter. Malleable spiders securely riveted to steel shaft.

Blades—Four crucible tool steel, hardened and tem-

pered.
Ball Bearings—Highest quality. Self-adjusting. Always ready for use. Dust proof.

—Double. Direct. One in each wheel. Flat

Gears—Double. steel pawls.

Bottom Knife-Self-sharpening tool steel.

Parts—Highest grade cast and mallcable. Accurately machined to dimensions. This mower is the best value possible to offer regard-

less of price. Price.....\$ 12.90

Spray Hose Nozzle



Made of brass highly polished. Will throw a solid stream or a spray. Fits any size garden hose.

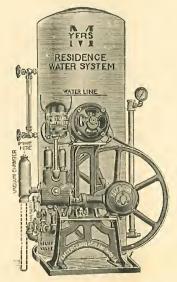


Garden or lawn hose. Corrugated cover. Guaranteed non-kinkable. Pure rubber tube, with long fibre cotton double jacket between tube and cover. KracKeriacK hose is noted for its wearing qualities.

		_
SIZE		PRICE
5/8"	25' length coupled	\$ 3.57
5/8" 5/8"	50' length coupled	6.37

The Myers Electric House Pump

Motor Driven, Automatically Controlled, Economical, Efficient



The Myers Electric House Pump can be operated by any electric current or from the Farm Lighting and Power Systems. The motor equipment is 1-6 H.P. Operation is automatically controlled by the use of the Automatic Pressure Controller. This appeals to users generally as it saves electricity, wear and tear on the pump itself, and saves time and labor in starting and tear in the pump itself, and saves time and labor in starting and stopping when water or pressure becomes low.

Self-Oiling—All working parts are automatically lubricated by oil splash from the crank case except the idler pulley which has a self-lubricating bushing—this eliminates frequent usage of a dirty oil can.

Price List

No. 600AT—Myers Electric House Pump, with Vacuum Chamber, Relief Valve, Air Valve, Pressure Controller, Endless Belt and 1-6 H.P., 110 Volt, 60 Cycle, Single Phase A.C. Motor or 110 Volt D.C., or 32 Volt D.C. Motor, with 40 gallon Galvanized Tank, Water Gauge, Pressure Gauge and Connecting Fit-

Specify current used. If Alternating Current, give phase, cycle and voltage. If Direct Current, give voltage. If cycle and voltage are other than specified above on Motors, there will be an extra charge.

When electricity is not available, refer to page 26 for description and price of hand equipments.

The KRACKERJACK Oil Stoves

This entire line represents the very best in modern oil stove construction. These stoves are relatively light but indefinitely strong and durable. All parts are carefully made and accurately fitted. No expense is spared in making these stoves the best of their kind.

All parts are readily accessible and easily eleaned.

The finish of each stove is perfect and the general effect, handsome. The Tops are smooth and roomy.

The end shelf gives extra space but can be easily removed when filling tank.

The Oil Tank is of glass with special automatic spring valve for filling.

The supply pipe is heavily tinned inside and out to prevent corrosion.

The back shelves are conveniently placed.

Portable ovens can be furniushed for oil stoves.

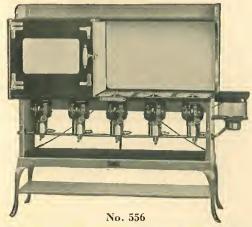
Last, and most important, this whole line of stoves is equipped with the Famous Lorain High Speed Burner. This is the most efficient and dependable burner on the market. Each Burner carries with it the standard Lorain Guarantee and, in itself, guarantees the economy and efficiency of the KracKerjack Oil Stoves. These stoves are particularly recommended for summer use, wherever gas is not available and are preferred by many users as better than a gas range, insofar as they are more economical and, in many respects more dependable.

Special and Exclusive Features of

THE LORAIN HIGH SPEED OIL BURNER

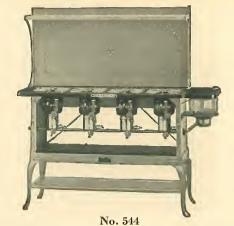
- 1. Inner Combustion Tube made of "Vesuvious" metal and guaranteed for 10 years.
- 2. Lorain Long Fibre cotton Wicks—ensure long service and steady flame.
- 3. Removable Head is quickly detachable and wick immediately accessible.
- 4. Chimney Raiser is a simple, positive but most convenient action.
- 5. Positive wick stop, accurately adjusted and requiring no attention.
- 6. A corrugated, all-brass wick Tube. It will never stick and bind.

- 7. An extra large, extra strong adjusting wheel.
- 8. Outside Wiek Tube is all-brass, strong and rigid, ample space between wick and outer tube.
- The Lorain is a Short-Chimney Burner. Gives a Blue Flame of intense heat, directed immediately against the cooking utensil.
- 10. One gallon of oil will operate a Lorain Burner continuously at full flame fort wenty-two hours and will evaporate forty-two pounds of water during this period. Its efficiency cannot be duplicated.



Gray and Black Finish with White Enamel Splasher Back

Spinsher Buck			
Extreme Measurement	WIDTH	DEPTH I	HEIGHT
(with End Shelf)	$.62\frac{1}{2}$	$17\frac{1}{2}$	56
Cooking Top (less End Shelf)	$.30\frac{1}{2}$	17	32
Oven (inside)	$.20\frac{1}{2}$	$15\frac{1}{2}$	$15\frac{3}{4}$
Oven (outside)	.231/4	$17\frac{1}{2}$	20
Cross Shelf	$.31\frac{1}{2}$	10	$19\frac{1}{2}$
End Shelf	. 73/4	17	32
Price Complete as Shown		\$	60.80
Extra Wicks	\$.	24 eac	h



Gray and Black Finish with White Enamel Back Shelf.

onen.			
Extreme Measurement	WIDTH	DEPTH	HEIGHT
(with End Shelf)	$.53\frac{1}{2}$	17	56
Cooking Top (less End Shelf)	.45	17	
Back Shelf	.45	81/4	221/4
Cross Shelf	.433/4	71/4	20
End Shelf			32
Price Complete as shown			39.20
Price Complete less High Back She	lf		27.60
Extra Wicks	9	A eacl	n



No. 543

Gray and Black Finish with White Enamel Back Shelf

Extreme Measurement	WIDTH	DEPTH	HEIGHT
(with End Shelf)	$.40\frac{1}{2}$	17	56
Cooking Top (less End Shelf)	$.32\frac{1}{4}$	17	32
Back Shelf	$.32\frac{1}{4}$	81/4	$22\frac{1}{4}$
Cross Shelf	.31	71/4	20
End Shelf	. 73/4	17	32
D: 0 1: 0			00.00
Price Complete as Shown		4	30.80
Price Complete less High Back She	lf		21.20
Extra wicks		24 00	ab
Extra wicks	· · ·	Z4 eac	CH



No. 21 Two Burner Oven

The Ideal Oven for use with oil or gas stoves.

WIDTH	DEPTH	HEIGHT
20"	13"	18"

Price	 	\$ 3 99



No. 512

Gray and Black Finish with White Enamel Back Shelf

Extreme Measurement	WIDTH	DEPTH	HEIGHT
(with End Shelf)	.33	17	56
Cooking Top (less End Shelf)		17	32
Back Shelf	.243/4	81/4	$22\frac{1}{4}$
Cross Shelf		$7\frac{1}{4}$	20
End Shelf	. 73/4	17	32
Price Complete as Shown		§	24.00
Price Complete less High Back Shell	lf		16.00
Extra wicks	\$.	.24 eac	ch



A Portable Oil Heater, safe, economical, efficient. Easily cleaned and easily filled. A most convenient household accessory. Has many special features, notably the special Floating Cone which automatically adjusts itself on head of fount and insures a clean, clear, smokeless flame. This heater, if properly cleaned, will not smoke or emit unpleasant odors. Priced within the reach of all.

Price		٠	 	 	\$ 5.60
Extra	wicks		 	 \$.24	each

SMYTH-DESPARD COMPANY

UTICA, NEW YORK

March, 1924.

TO OUR OLD CUSTOMERS AND TO OUR NEW:

We are sure you will welcome our new Household Electric Ap-

pliance Department.

Here, as in other lines, we are offering exceptional values. Here, as elsewhere, we have selected and listed only those thoroughly standardized and thoroughly tested appliances that we know will please you.

To all of you whose homes are electrified, these appliances will mean added ease, added comfort and added efficiency at minimum

cost.

The Electric Heater will bring added comfort to any room as needed on cool and frosty mornings.

The Electric Fan will temper the heat of July and August days.

The Electric Toasters, Electric Coffee Percolators and the Electric Waffle Irons will guarantee Quality toast, coffee and waffles, always right, always the same; and no trouble, fuss and heat in the preparation.

The Sewing Machine Motor will electrify this task and make of

this labor a pastime.

The Electric Iron, instantly ready to use, available for use wherever there is an electric connection, means pleasure and ease in a task otherwise dreaded.

To those accustomed to the old "dirt stirring" method of broom sweeping with the strain on back, arm and temper, the ease and speed and thoroughness of the New KracKerjack Vacuum Cleaner will be a revelation; and so on through the list.

All these appliances are the best of their kind. All are guaranteed. All are priced at a definite cash price which price includes Prepaid Delivery on orders amounting to \$10.00 or more, as per con-

ditions outlined on page one of Catalog.

This is the same system and the same policy, and carries with it the same guarantee that has received general approval and endorsement by our thousands of customers throughout the United States.

Trusting that through economy and service we may continue to merit your patronage, we remain.

Very truly yours,

SMYTH-DESPARD COMPANY,

Noward J. Low.

Vice President.

HGL.S

The Krackerjack Electric Vacuum Cleaner

Thoroughly Guaranteed, Mechanically Correct, Sturdy in Construction, Simple in Operation, "A Marvel" in Efficiency

Special and Exclusive

Features

4

- 1. The Heart of any Electric Vacuum Cleaner is the Motor. The KraeKerjacK has a Horizontal, aircooled Type Motor, for 105 to 120 volt alternating or direct current. There is nothing better. If properly lubricated, it is practically indestructible.
- 2. Coupled with the Motor is a marvelously efficient exhaust fan. It's a Wonder. Let these two units do your work for you.
- 3. The KracKerjacK despite its sturdy, strong construction, is light in weight, i. e., 11½ pounds. Aluminum, the lightest of all metals, is used throughout, except for the working parts.
- 4. The Pistol-grip Handle, designed for ease, is fitted with an Electric Switch. A quarter turn of the Knob starts the Motor, another turn and it stops.
- 5. At the top of the Bag is a simple slide-on clamp. This clamps tightly but slides on or off, with utmost ease.

All Attachments FREE

Sold on our 10 days Trial Plan



Price \$33.30

Special and Exclusive Features

4

- 6. The Sleeve Bag connection at base is removed or attached by a quarter turn on the bayonet lock.
- 7. An adjusting serew on the front caster shaft lowers or elevates the suction nozzle at will of the operator.
- 8. A 20-foot Flexible Covered Cord gives altogether adequate radius. In this connection, note the guides on handle are conveniently arranged for carrying cord when not in use.
- 9. The cleaning nozzle of the KracKerjacK Vacuum Cleaner is 13 in. wide and yet, so designed as to reach the most ungetatable corners.
- 10. The Suetion Nozzle is fitted with a strong bristle Brush of the Pressure type, i. e., is pressed down against rug or carpet by a strong adjustable spring. This Brush will pick off surface lint and threads and ravelings and, at the same time, separate the nap of loosely woven rugs and fabries, allowing the air suction to remove imbedded dirt and grit.

Delivered anywhere in the U.S.A. East of the Mississippi River CHARGES PREPAID

OUR 10 DAYS TRIAL PLAN

We will deliver this KracKerjacK Electric Vacuum Cleaner anywhere in the United States, east of the Mississippi River, on receipt of \$33.30. A slight additional charge will be made for transportation to more distant points.

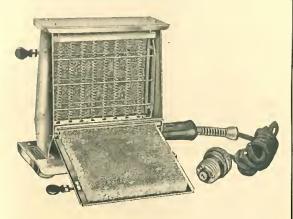
There is no extra charge for attachments. These are FREE and are included in the above price.

We thoroughly guarantee the whole equipment, as we do all Mechanical and Sanitary Equipment and Electrical Appliances sold. But beyond this, we hereby agree that if after a 10 days' trial of the Krackerjack Vacuum Cleaner in your home, you yourself are not thoroughly satisfied with your purchase, you may return the same to us and we will refund your money cheerfully. Could anything be fairer?

At prices quoted, we can not afford to come to you and demonstrate the KracKerjacK Cleaner. Demonstrate it for yourself in your own home and sell yourself.

SEND FOR SPECIAL FREE CATALOG

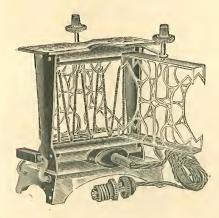
Electric Toaster



of attractive design. Bright nickel finish. Noted for its low current consumption. Toasts quickly and to an even brown. Furnished complete with six-foot cord and two-piece attachment plug. Suitable for use on voltages from 105 to 120, either Direct or Alternating Current. A moderate priced appliance of large value.

Price.....\$ 2.80

Electric Toaster



Economical in current consumption. Toasts to a crisp golden brown. Turns toast by revolving top turning knobs. Finished in bright nickel plate, highly polished with ebony finished handles. An appliance that will lend appearance to the finest dining table. Comes complete ready to use with six-foot cord and two-piece attachment plug. Operates on voltages from 105 to 120, either Alternating or Direct current. With an electric Percolator and an electric Toaster, half the breakfast problem is quickly, easily and pleasantly solved.

Price.....\$ 4.12

4 Cup Percolator



The right size for the average family. Coffee made right at the table, always clear, always hot, always a success. A few minutes after current is turned on, the coffee is ready to serve and "such coffee." This Percolator is constructed of solid aluminum, bright finished. It is economical in current consumption. Complete with cord and two-piece attachment plug. Operates on 105 to 120 Volts, either Alternating or Direct Current.

Price.....\$ 3.76

9 Cup Percolator



Crystal clear coffee made right at the table, in this attractively finished aluminum percolator, assures you of coffee made just right. "No more muddy coffee." Low current consumption, with long life heating element. Furnished complete with cord and two-piece attachment plug for 105 to 120 Volt current, either Alternating or Direct.

Price..... \$ 4.32

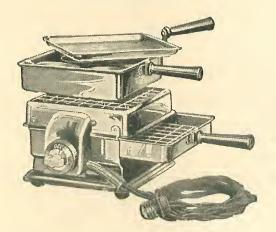
Senior Waffle Iron



This Waffle Iron is made of Nickel Plated Copper, highly polished, with Black Ebonized Handle. The Waffle Plates are cast aluminum. It is a full sized Iron, cooking waffle seven and three-eighths inches in diameter. It is strong, thoroughly well constructed, highly polished—a handsome addition to any dining table. The heating elements contained in both top and bottom plates are most efficient. It is a "high-speed," time-saving appliance. No better waffles can be baked than this will bake—baked and served—crisp, brown and hot—right on the table. This iron can be used on any Alternating or Direct Current of 105 to 120 Volts. Complete with cord and two-piece attachment plug.

Price.....\$ 9.53

Electric Grill Stove



This Electric Grill represents the modern development of a complete table stove. Bakes, broils, fries, toasts, boils and grills with real satisfaction. It has a three-heat switch, giving low, medium or high degree of heat. Finished in full nickel plate. Ebonized handles. It will operate on either Direct or Alternating Current, 105 to 120 Volts. Complete with cord and two-piece attachment plug.

Price.....\$ 10.94

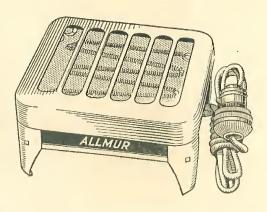
Junior Waffle Iron



This is a moderate sized, moderate priced but extremely efficient Waffle Iron. It is made of Solid Aluminum, highly polished. Black Ebonized Handle. The Heating element in both top and bottom plates gives a quick even heat. After iron is once thoroughly heated, it will bake crisp brown waffles in less than three minutes for each waffle. Actual size of waffle is six and one-quarter inches. Complete with cord and two-piece attachment plug and tested Waffle Recipe. Operates on 105 to 120 Volts, Alternating or Direct Current.

Price....\$ 6.75

Electric Stove



This exceptionally low priced grill, with its powerful heating element, quickly toasts, broils, fries and grills in a few minutes. Constructed of steel, heavily nickel-plated, with asbestos bottom to protect table. Furnished complete with cord and two-piece attachment plug to operate on 105 to 120 volt current, either Alternating or Direct.

Price.....\$.90

The KRACKERJACK

Junior Electric Iron



It is a full size, full weight six-pound iron.

It is heavily nickel plated with Black Ebonized Handle.

It has a tip-up rest attached to back of iron.

It heats quickly and holds its heat evenly.

It is a thoroughly reliable iron and represents high value at a moderate price.

It is adapted to operate on 105 to 120 volts, Alternating or Direct Current, or can be furnished for 32 Volt. Specify which voltage iron is desired.

Complete with cord and two-piece attachment plug.

Price.....\$ 3.20

Travellers Flat Iron



To those who must travel, or be away from home, this is the ideal iron, weighs three and one-half pounds, just the right weight for ironing fine laces, collars and lingerie. Packed in a substantial box of the right height for packing in suit ease or bag. Back rest eliminates necessity of carrying extra stand. Furnished complete with cord and two way attachment plug. Operates on 105 to 120 volts, Alternating or Direct Current.

Price.....\$ 3.02

The

KRACKERJACK

Electric Flat Iron



A High Grade, Full Sized Iron, complete with Light Portable Rest. This electric iron is essentially a Quality Product. It is a standard six-pound iron, full size, Heavily Nickel Plated with Ebonized Handle, evenly balanced, handsomely finished. The handle fits the hand and the perfect balance insures ease in operation. The Heating element operates quickly and distributes the heat evenly. The iron maintains the proper heat for ideal ironing. The Light Portable Rest will be found a great convenience. The KracKerjack Iron is a thoroughly reliable, efficient and durable appliance. There is none better. It will quickly pay for itself in service. It is a great timesaver and a step-saver also. Why tie yourself to a hot stove when ironing? This Iron can be used on 105 to 120 Volt current, either Alternating or Direct, or can be furnished for 32 Volt current. Specify which voltage iron is desired.

Complete with Portable Rest, Cord and two-piece attachment plug.

Price.....\$ 4.20

Sewing Machine Motor



This efficient Motor will electrify your task and make of it a pastime. It can readily be attached to any kind of a sewing machine. A slight pressure of the foot controls the speed, the motor does the work. No more "treadmilling." It is a Universal Motor. Can be used with either Alternating or Direct Current, 105 to 120 volts. Complete with foot control, cord and two-piece attachment plug.

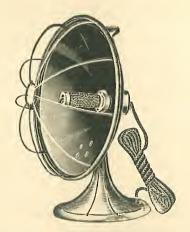
Price.....\$ 10.80

Electric Heating Pad



Solid Comfort at Minimum Expense. Throw away leaky hot water bottles. Enjoy the comfort of a soft eider-down covered Electric Pad, always ready for service, holds heat as long as connected, special heat controlling switch, three temperatures available, i. e.: low, medium or high. Pad is light, soft and flexible. Can be used on any electric current, alternating or direct, 105 to 120 volts. Complete with cord and two-piece attachment plug.

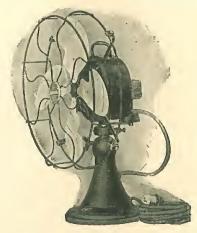
Price.....\$ 6.78



An Electric Heater will not replace the furnace in zero weather but, as a portable heating accessory, it will bring comfort to any household. It will be particularly appreciated on the cool and frosty mornings of fall and spring when furnace is out of service. With this heater, portable Heat is available at any time for Breakfast Room, for Dressing Room or for Bathroom, ready for instant use where and when and as needed. It stands on floor or can be hung on wall. It heats quickly and throws out powerful heat. A sure cure for "Goose Flesh." It has a solid copper parabolic reflector. It is equipped with handle for carrying. Operates on voltages from 105 to 120, either alternating or direct current. Complete with seven-foot cord and two-piece attachment plug.

Price.....\$ 4.32

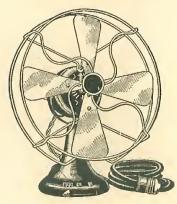
12 Inch Universal Oscillating Fan



This is an extra heavy duty Fan. A Powerful and most efficient appliance, specially designed for large rooms, offices, hotels, etc. It cannot be recommended too highly. It is designed and constructed for long and continuous service. It is controlled by special regulating switch which controls the oscillating device as well as the three speeds. Operates on 105 to 120 volt alternating current. Complete with cord and two-piece attachment plug.

Price.....\$ 26.49

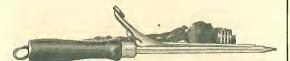
8 Inch Universal Fan



A sturdy, well-made, high grade fan for home or office use. Throws a powerful air current, runs noiselessly, is economical in Electric Consumption. Regulating switch has three speeds. Whole construction is of the best, Phosphor Bronze Bearings, special spring oilers, an exceptionally efficient motor. High value, moderate price. Will operate on Alternating or Direct Current, 105 to 120 volts. Do not wait for the sweltering heat. Buy before you need it and be ready when the hot days come. Complete with cord and attachment plug.

Price.....\$ 7.69

Curling Iron



Priced exceptionally low for dependable quality. Curling rod $\frac{5}{16}$ in. diameter, with detachable shield. Nickel plated finish with ebonized handle. Furnished complete with six-foot cord and two-piece attachment plug. For 105 to 120 volt, Alternating or Direct current.

Price.....\$.88

Curling Iron



Embodying the latest developments in a combination curling and waving iron. Curling rod ¾"[in diameter, heavily nickel plated, ebonized finish handle, detachable shield, detachable cord plug at handle. Complete with six-foot cord and two-piece attachment plug. For 105 to 120 volt, Alternating or Direct Current.

Price.....\$ 2.29

Vibrator



The correct size for home or professional use. Perfectly balanced, light weight and noiseless. Has three-speed control. Handsomely finished in bright nickel and black. Furnished complete with six applicators, eight-foot cord and two-piece attachment plug, all packed in Leatherette Carrying Case with treatment book and colored chart. For use on 105 to 120 volt, Alternating or Direct current.

Price..... \$ 12.54

Violet Ray



An exceptionally high grade Violet Ray Machine. The correct size for home, barbers, physicians, and beauty parlor use. Furnished complete including the surface, comb, throat, nasal and metal electrodes. Five in all. Packed in an attractive carrying case. For use on 105 to 120 volt current, either Alternating or Direct. Complete with cord and two-piece attachment plug.

Price.....\$ 20.63

Electric Hair Dryer



A necessity to the well groomed woman. Steady volume of air, the temperature of which can be varied to suit. Switch conveniently located in handle. Bright finish aluminum. Complete with cord and two-piece attachment plug, all packed in an attractive carrying case. Operates on voltages from 105 to 120 volts, either Alternating or Direct current. The possession of this Dryer insures shampoo comfort, convenience and time saving.

Price.....\$ 10.32

Clamp Lamp



Light where you need it, is furnished by this handy clamp lamp. Clamp is lined with heavy green felt and will clamp rigidly on a sheet of paper or a four inch post, or can be hung from base or stand on base without tipping. Adjustable shade directs light where wanted. Finished in brushed brass. Furnished complete with six-foot cord and two-piece attachment plug. Lamp bulb not included. Operates on any voltage, Alternating or Direct current.

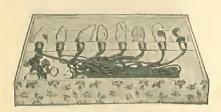
Price.....\$ 1.75

"The Ideal"



A quality flashlight, throughout, though priced extremely low. Its powerful bulls-eye lens throws an extra strong light. Should be in every home and a part of every motorist's or camper's equipment. Case is of brass heavily nickel plated or can be furnished in black fibre case. Size 1½" x 6½", the handy pocket size.

Price complete with nickel plated case\$	
1 1160 COMPIECE WITH BIRROW MAN CONSCIENCE	1.24
Extra Renewal Batteries, each	.22
Extra Renewal Bulbs, each	.12



This Christmas Tree lighting set differs from the set described opposite only as to the shape of the lamps which are reproductions of various fruits and animals all brightly colored. Combining these two sets, will add to the decoration of any Christmas Tree.

Price	 	 \$ 2.43
Extra Lamps.		.12

"Three Light"



The peer of lights. Contains three bulbs, each operated from a separate switch point located on the handle. Always two bulbs in reserve so that you are never without light due to bulbs burning out. Case is hard finish black corrugated fibre with all metal parts heavily nickel plated. Size 134" x 934".

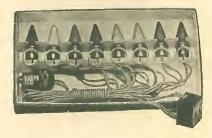
Price Complete, ready for use\$	3.69
Extra Renewal Batteries, each	
Extra Renewal Bulbs, each	.12

"The Beam"



Distant objects are easily seen with this powerful flashlight which throws its focusing beam a distance of three hundred feet. The ideal flashlight for motorist or camper. Case is of brass, heavily nickel plated. Size 1½" x 8½".

Price Complete, ready for use\$	2.38
Extra Renewal Batteries, each	.34
Extra Renewal Bulbs, each	.12



Real decorative effects are obtainable on the Yuletide Tree by using electric lights. Avoid the fire hazard of old time candles. Eight bright colored lights with extra attachment plug so that eight, sixteen, twenty-four or thirty-two lights can be operated from one electric outlet. Lamps are cone shaped, brightly colored. Furnished complete ready for use on 105 to 120 yolt Alternating or Direct current.

Price		\$ 2.30	0
	Mazda Lamps.		

SMYTH-DESPARD CO.

UTICA, N. Y.

Our Order Number

Check
P. O. Order
Ехр. М. О
Draft
Cash
Remit by most convenient method

QUANTITY	SIZE	ARTICLE	PRICE	EACH	NET AMOUNT	
74						
-						
					-	
						TAL

SUGGESTIONS

PUMPS, PIPE, ETC.

- 1. In planning water installations, always figure with an eye to the future. The initial cost of the next size larger is relatively small. The replacement cost should your specifications prove inadequate, is high.
 - 2. Doubling diameter of pipe increases carrying capacity four times.
- 3. All pipe lines should be as straight as possible. Bends and sharp turns increase friction and diminish capacity.
- 4. If valves are used on water lines, use gate valves, not globe valves. Gate valves afford a full straightaway course.
 - 5. All pumps should be placed as near source of supply as possible.
- 6. While theoretically a suction pump will lift water 33.9 ft. at sea level, in practice, it is not safe to count on a lift of more than 20 to 22 feet.
- 7. A horizontal line is practical up to 1000 feet, providing you provide for just enough gradual slope from pump to supply, to drain the pipe.
- 8. On long suction lines the pump must be driven at slower speed and should have a vacuum chamber.
- 9. A Foot Valve is required on all long suction lines. Strainers should also be used unless water is absolutely free from foreign substances.
 - 10. Hot water cannot be lifted by a suction pump but must flow to it.
- 11. If it is necessary to place pump more than 22 feet above supply level, consult us. It will, in such case, probably be necessary to install a Deep Well system and all details are required for intelligent quotation.
- 12. The following table gives the average quantity of water per day required for the different services your water system should furnish:

Domestic requirements	per person	25 gal.
(Bath, Kitchen and Laundry) Cows Horses Hogs Sheep	per cow per horse per hog per sheep	12 gal. 12 gal. 2 gal. 2 gal.
	DIAMETER IN	FEET

(Capacity of round cisterns in	gallons).							
DEPTH IN FEET				4'	5'	6′	7'	8′
4	. Capacity	v in (Gallons	376	470	564	658	752
5		46	66	588	734	881	1028	1175
6,		4.6	6.6	847	1058	1269	1841	1692
7	6.6	4.6	66	1152	1439	1727	2015	2303
8	. 46	4.6	4.6	1504	1880	2332	2632	3008

BELTING AND PULLEYS

- A. To determine the length of a belt, add the diameter of the two pulleys, multiply this sum by 3 1-7 and divide the product by two. Add to this result, twice the distance between pulley centers and the result will be the required length.
- B. To find the size of the Driving Pulley, multiply the diameter of the driven by the number of its revolutions and divide the product by the number of revolutions of the driver. The result will be the diameter of the driver.
- C. To find the size of the Driven Pulley, multiply the diameter of the Driver by the number of its revolutions and divide the product by the number of the revolutions of the driven. The result will be the diameter of the driven pulley.
- D. To find the speed of the Driven Pulley, multiply the diameter of the Driver by the number of its revolutions and divide by the diameter of the driver. The quotient will be the number of revolutions of the driven pulley.

SMYTH-DESPARD CO. UTICA, N. Y.

Our Order Number

Check
P. O. Order
Exp. M. O
Draft
Cash
Remit by most convenient method to you

QUANTITY	SIZE	ARTICLE	PRICE EACH	PRICE EACH NET AMOUNT		r	
						,	
				•			

SUGGESTIONS

PUMPS, PIPE, ETC.

- 1. In planning water installations, always figure with an eye to the future. The initial cost of the next size larger is relatively small. The replacement cost should your specifications prove inadequate, is high.
 - 2. Doubling diameter of pipe increases carrying capacity four times.
- 3. All pipe lines should be as straight as possible. Bends and sharp turns increase friction and diminish capacity.
- 4. If valves are used on water lines, use gate valves, not globe valves. Gate valves afford a full straightaway course.
 - 5. All pumps should be placed as near source of supply as possible.
- 6. While theoretically a suction pump will lift water 33.9 ft. at sea level, in practice, it is not safe to count on a lift of more than 20 to 22 feet.
- 7. A horizontal line is practical up to 1000 feet, providing you provide for just enough gradual slope from pump to supply, to drain the pipe.
- 8. On long suction lines the pump must be driven at slower speed and should have a vacuum chamber.
- 9. A Foot Valve is required on all long suction lines. Strainers should also be used unless water is absolutely free from foreign substances.
 - 10. Hot water cannot be lifted by a suction pump but must flow to it.

- 11. If it is necessary to place pump more than 22 feet above supply level, consult us. It will, in such case, probably be necessary to install a Deep Well system and all details are required for intelligent quotation.
- 12. The following table gives the average quantity of water per day required for the different services your water system should furnish:

Domestic requirement	s		per	person		25 g	gai.
(Bath, Kitchen a	nd Laundry)					7.0	,
Cows				cow		12 g	
Horses				horse		12 8	
Hogs				hog			gal.
Sheep			per	sheep		2 g	gal.
				DIAM	ETER IN FE	ET	
(Capacity of round cisterns in	gallons).					-1	0.1
DEPTH IN FEET			4'	5'	6'	7'	8.
4	Capacity in	Gallons	376	470	564	658	752
5		4.6	588	734	881	1028	1175
6	46 66	4.6	847	1058	1269	1841	1692
7	44 44	6.6	1152	1439	1727	2015	2303
8	44 24	6.6	1504	1880	2332	2632	3008

BELTING AND PULLEYS

- A. To determine the length of a belt, add the diameter of the two pulleys, multiply this sum by 3 1-7 and divide the product by two. Add to this result, twice the distance between pulley centers and the result will be the required length.
- B. To find the size of the Driving Pulley, multiply the diameter of the driven by the number of its revolutions and divide the product by the number of revolutions of the driver. The result will be the diameter of the driver.
- C. To find the size of the Driven Pulley, multiply the diameter of the Driver by the number of its revolutions and divide the product by the number of the revolutions of the driven. The result will be the diameter of the driven pulley.
- D. To find the speed of the Driven Pulley, multiply the diameter of the Driver by the number of its revolutions and divide by the diameter of the driver. The quotient will be the number of revolutions of the driven pulley.

INDEX

	PAGE		PAGE
Basin Cocks	8	Kerosene Engines	23
Bath Cocks	8	Ladles	-9
Bathroom Outfits Complete	12-13	Lamps, Christmas Tree	
Dothtuba		Lamps, Christmas Tree	
Bathtubs.	17	Lamps, Clamp	44
Bathtub Waste Pipes	6	Lamps, Flashlight	44
Belt Lacing	33	Laundry Trays	22
Belting	33	Lavatories	18-19-20
Bibbs, Hose	7-8	Lampmawara	34
Dibbs, Hood		Lawnmowers	94
Bibbs, Plain	7-8	Lead Closet Bends	6
Bowls, Cow Water	29	Lead Joint Runners	10
Breast Drills	10	Lead Pipe	6
Caulking Chisels	10	Oakum, Plumbers'	10
Caulking Lead.	4	Oil Care	29
Course Dies Fried		Oil Cups	
Cement, Pipe Joint	22	Oil Heaters	36
Cesspools	29	Oil Stoves	35-36
Chemical Closets	22	Ovens	36
Christmas Tree Lights	44	Pig Lead.	4
Cistern Pumps	26	Pipe, Water, Gas and Steam	3
Cleanant Dlugg			
Cleanout Plugs.	5	Pipe Cutters	
Closet Bends	4-6	Pipe Fittings	3-4
Closet Bowls	16	Pipeless Furnaces	2
Closet Floor Flanges	6	Pipe Straps	3
Closet Seats, Water.	16	Pitcher Spout Pumps	
Closet Tonka Water		Pitcher Spout Pumps.	20
Closet Tanks, Water.	15-16	Pneumatic Water Supply Systems	26-34
Closets, Water	14-15-16	Pots, Melting	9
Clutch Pulleys	32	Power Pumps	25
Coffee Percolators	39	Pulleys, Clutch	
Collars, Shaft	33	Pulleys, Steel and Wood	32
Combination Sink Fixture			
Combination Sink Pixture	8	Pump Brackets	28
Compression Stops	8	Pump Valves	23
Cordwood Saw Blades	11	Rams	28
Cordwood Saws	11	Range Boilers	21
Covers, Faucet Hole	7	Roof Cement	30-31
Curling Irong		Docf Flores	
Curling Irons	43	Roof Flanges	5
Drain Boards, Sink	21	Sewing Machine Motor	41
Drain Pipe Solvent	22	Shaft Couplings	32
Drive Caps	29	Shafting, Cold Rolled Steel	33
Electric Fans	42	Sillcocks	7
Floatric Flot Irons			22
Electric Flat Irons.	41	Showers	
Electric Grills.	40	Sinks18	-19-20-21
Electric Hair Dryer	43	Soil Pipe	4
Electric Heaters	42	Soil Pipe Fittings.	5
Electric Heating Pads	42	Solder, Plumber's	9
Electric Stoves	40	Soldering Connews	10
Electric Teacters		Soldering Coppers	10
Electric Toasters	39	Stocks and Dies	9
Electric Vibrators	43	Stoppers, Rubber	8
Electric Violet Ray Machines	43	Stops and Waste	7
Ferrules, Drive.	6	Stoves, Oil	35-36
Fittings, Pipe	3-4	Strainers Pine	29
Fittings Soil Ding		Strainers, Pipe.	
Fittings, Soil Pipe.	.5	Supply Pipes, Bathtub & Lavatory	6
Flashlights and Batteries	44	Systems, Water	26-34
Float Valves	28	Tank Balls, Rubber	6
Foot Valves and Strainers	29	Tank Floats, Copper	6
Force Cups	10	Torches, Blow	ŏ
Furnaces, Plumbers'	9	Tunna	5-6-7
E dinaces, Flumbers		Traps	5-0-1
Furnaces, One-Pipe.	2	Vacuum Cleaners	38
Gasoline Engines	24	Valves	4
Grease Cups	28	Vise, Combination	8
Grinders, Tool	10	Vises, Pipe	ğ
Hack Saw Blades	iĭ	Waffle Irone	40
Hack Com France		Wasile Irons.	
Hack Saw Frames	11	Washers, Bibb.	7
Hand Drills	10	Water Closet Bowls	16
Hand Pumps	27-28	Water Closet Outfits14	-15-16-22
Hangers, Shafting	32-33	Water Closet Seats	16
Heaters, Kerosene	21	Water Closet Toples	15-16
Harton Oil		Water Closet Tanks	
Heaters, Oil.	36	Water Systems	26-34
Heaters, Water, Gas	21	Well Points	29
Hose, Garden	34	Well Pumps	27-28
Hose Nozzle	34	Wrenches, Nut	11
Jacks, Pump	27		9
о повод 1 шир 	21	Wrenches, Pipe	9

